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&lt;210&gt; 5266

&lt;211&gt; 853

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5266

Met	Gly	Thr	Pro	Arg	Ala	Gln	His	Pro	Pro	Pro	Pro	Gln	Leu	Leu	Phe
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		20						25					30		
Glu	Glu	Ile	Leu	Pro	Glu	Pro	Gly	Ser	Glu	Thr	Pro	Thr	Val	Ala	Ser
		35					40					45			
Glu	Ala	Leu	Ala	Glu	Leu	Leu	His	Gly	Ala	Leu	Leu	Arg	Arg	Gly	Pro
	50					55					60				
Glu	Met	Gly	Tyr	Leu	Pro	Gly	Pro	Pro	Leu	Gly	Pro	Glu	Gly	Gly	Glu
65					70					75					80
Glu	Glu	Thr	Thr	Thr	Thr	Ile	Ile	Thr	Thr	Thr	Thr	Val	Thr	Thr	Thr
			85					90					95		
Val	Thr	Ser	Pro	Val	Leu	Cys	Asn	Asn	Asn	Ile	Ser	Glu	Gly	Glu	Gly
			100					105					110		
Tyr	Val	Glu	Ser	Pro	Asp	Leu	Gly	Ser	Pro	Val	Ser	Arg	Thr	Leu	Gly
		115					120					125			
Leu	Leu	Asp	Cys	Thr	Tyr	Ser	Ile	His	Val	Tyr	Pro	Gly	Tyr	Gly	Ile
	130					135					140				
Glu	Ile	Gln	Val	Gln	Thr	Leu	Asn	Leu	Ser	Gln	Glu	Glu	Glu	Leu	Leu
145					150					155					160
Val	Leu	Ala	Gly	Gly	Gly	Ser	Pro	Gly	Leu	Ala	Pro	Arg	Leu	Leu	Ala
			165					170					175		
Asn	Ser	Ser	Met	Leu	Gly	Glu	Gly	Gln	Val	Leu	Arg	Ser	Pro	Thr	Asn
			180					185					190		
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4437



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Ile Ala Asn Gly His Arg Thr Ala Ser Asp Ala Gly Phe Pro Val Gly
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Ser His Val Gln Tyr Arg Cys Leu Pro Gly Tyr Ser Leu Glu Gly Ala
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Ala Met Leu Thr Cys Tyr Ser Arg Asp Thr Gly Thr Pro Lys Trp Ser
          675          680          685
Asp Arg Val Pro Lys Cys Ala Leu Lys Tyr Glu Pro Cys Leu Asn Pro
          690          695          700
Gly Val Pro Glu Asn Gly Tyr Gln Thr Leu Tyr Lys His His Tyr Gln
705          710          715          720
Ala Gly Glu Ser Leu Arg Phe Phe Cys Tyr Glu Gly Phe Glu Leu Ile
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Gly Glu Val Thr Ile Thr Cys Val Pro Gly His Pro Ser Gln Trp Thr
          740          745          750
Ser Gln Pro Pro Leu Cys Lys Val Ala Tyr Glu Glu Leu Leu Asp Asn
          755          760          765
Arg Lys Leu Glu Val Thr Gln Thr Thr Asp Pro Ser Arg Gln Leu Glu
          770          775          780
Gly Gly Asn Leu Ala Leu Ala Ile Leu Leu Pro Leu Gly Leu Val Ile
785          790          795          800
Val Leu Gly Ser Gly Val Tyr Ile Tyr Tyr Thr Lys Leu Gln Gly Lys
          805          810          815
Ser Leu Phe Gly Phe Ser Gly Ser His Ser Tyr Ser Pro Ile Thr Val
          820          825          830
Glu Ser Asp Phe Ser Asn Pro Leu Tyr Glu Ala Gly Asp Thr Arg Glu
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Tyr Glu Val Ser Ile
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&lt;210&gt; 5267

&lt;211&gt; 885

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5267

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540

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<210> 5268

<211> 279

<212> PRT

<213> Homo sapiens

<400> 5268

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			20					25					30			
Tyr	Ala	Pro	Gln	Thr	Tyr	Ala	Ala	Ile	Pro	Ser	Leu	His	Phe	Pro	Ala	
		35					40					45				
Thr	Lys	Gly	His	Leu	Ser	Asn	Arg	Ala	Ile	Ile	Arg	Ala	Pro	Ser	Val	
	50					55					60					
Arg	Glu	Ile	Tyr	Met	Asn	Val	Pro	Val	Gly	Ala	Ala	Gly	Val	Arg	Gly	
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Leu	Gly	Gly	Arg	Gly	Tyr	Leu	Ala	Tyr	Thr	Gly	Leu	Gly	Arg	Gly	Tyr	
			85					90					95			
Gln	Val	Lys	Gly	Asp	Lys	Arg	Glu	Asp	Lys	Leu	Tyr	Asp	Ile	Leu	Pro	
			100				105					110				
Gly	Met	Glu	Leu	Thr	Pro	Met	Asn	Pro	Val	Thr	Leu	Lys	Pro	Gln	Gly	
	115					120					125					
Ile	Lys	Leu	Ala	Pro	Gln	Ile	Leu	Glu	Glu	Ile	Cys	Gln	Lys	Asn	Asn	
	130				135						140					
Trp	Gly	Gln	Pro	Val	Tyr	Gln	Leu	His	Ser	Ala	Ile	Gly	Gln	Asp	Gln	
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Arg	Gln	Leu	Phe	Leu	Tyr	Lys	Ile	Thr	Ile	Pro	Ala	Leu	Ala	Ser	Gln	
			165				170				175					
Asn	Pro	Ala	Ile	His	Pro	Phe	Thr	Pro	Pro	Lys	Leu	Ser	Ala	Phe	Val	
		180				185					190					
Asp	Glu	Ala	Lys	Thr	Tyr	Ala	Ala	Glu	Tyr	Thr	Leu	Gln	Thr	Leu	Gly	
	195					200					205					
Ile	Pro	Thr	Asp	Gly	Gly	Asp	Gly	Thr	Met	Ala	Thr	Ala	Ala	Ala	Ala	
	210				215						220					
Ala	Thr	Ala	Phe	Pro	Gly	Tyr	Ala	Val	Pro	Asn	Ala	Thr	Ala	Pro	Val	
225				230					235					240		
Ser	Ala	Ala	Gln	Leu	Lys	Gln	Ala	Val	Thr	Leu	Gly	Gln	Asp	Leu	Ala	
			245				250						255			
Ala	Tyr	Thr	Thr	Tyr	Glu	Val	Tyr	Pro	Thr	Phe	Ala	Val	Thr	Ala	Arg	
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<211> 1177  
<212> DNA  
<213> Homo sapiens

<400> 5269  
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<210> 5270  
<211> 327  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 5270

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Glu Leu Phe Leu Glu Glu Leu Asp Glu Leu Pro Pro Leu Ser Pro Met
          20          25          30
Gln Pro Ile Ser Glu Glu Glu Ala Ile Gln Ile Ile Ala Asp Pro Pro
          35          40          45
Leu Pro Pro Ala Ser Phe Thr Leu Arg Asp Tyr Val Asp His Ser Glu
          50          55          60
Thr Leu Gln Lys Leu Val Leu Leu Gly Val Asp Leu Ser Lys Ile Glu
65          70          75          80
Lys His Pro Glu Ala Ala Asn Leu Leu Leu Arg Leu Asp Phe Glu Lys
          85          90          95
Asp Ile Lys Gln Met Leu Leu Phe Leu Lys Asp Val Gly Ile Glu Asp
          100          105          110
Asn Gln Leu Gly Ala Phe Leu Thr Lys Asn His Ala Ile Phe Ser Glu
          115          120          125
Asp Leu Glu Asn Leu Lys Thr Arg Val Ala Tyr Leu His Ser Lys Asn
          130          135          140
Phe Ser Lys Ala Asp Val Ala Gln Met Val Arg Lys Ala Pro Phe Leu
145          150          155          160
Leu Asn Phe Ser Val Glu Arg Leu Asp Asn Arg Leu Gly Phe Phe Gln
          165          170          175
Lys Glu Leu Glu Leu Ser Val Lys Lys Thr Arg Asp Leu Val Val Arg
          180          185          190
Leu Pro Arg Leu Leu Thr Gly Ser Leu Glu Pro Val Lys Glu Asn Met
          195          200          205
Lys Val Tyr Arg Leu Glu Leu Gly Phe Lys His Asn Glu Ile Gln His
          210          215          220
Met Ile Thr Arg Ile Pro Lys Met Leu Thr Ala Asn Lys Met Lys Leu
225          230          235          240
Thr Glu Thr Phe Asp Phe Val His Asn Val Met Ser Ile Pro His His
          245          250          255
Ile Ile Val Lys Phe Pro Gln Val Phe Asn Thr Arg Leu Phe Lys Val
          260          265          270
Lys Glu Arg His Leu Phe Leu Thr Tyr Leu Gly Arg Ala Gln Tyr Asp
          275          280          285
Pro Ala Lys Pro Asn Tyr Ile Ser Leu Asp Lys Leu Val Ser Ile Pro
          290          295          300
Asp Glu Ile Phe Cys Glu Glu Ile Ala Lys Ala Ser Val Gln Asp Phe
305          310          315          320
Glu Lys Phe Leu Lys Thr Leu
          325

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&lt;210&gt; 5271

&lt;211&gt; 1185

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5271

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120

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<210> 5272

<211> 385

<212> PRT

<213> Homo sapiens

<400> 5272

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			20					25					30		
Glu	Cys	Gly	Asn	Val	Thr	Gly	Ala	Ser	Ser	Pro	Ser	Arg	Thr	Pro	Phe
		35					40					45			
Gln	Asn	Pro	Ser	Leu	Leu	Leu	Val	His	Lys	Gln	Lys	Leu	Ala	Lys	Trp
		50				55					60				
Val	Ala	Ile	Gln	Ser	Val	Ser	Ala	Trp	Pro	Glu	Lys	Arg	Gly	Glu	Ile
65				70					75					80	
Arg	Arg	Met	Met	Glu	Val	Ala	Ala	Ala	Asp	Val	Lys	Gln	Leu	Gly	Gly

				85					90					95					
Ser	Val	Glu	Leu	Val	Asp	Ile	Gly	Lys	Gln	Lys	Leu	Pro	Asp	Gly	Ser				
			100					105					110						
Glu	Ile	Pro	Leu	Pro	Pro	Ile	Leu	Leu	Gly	Arg	Leu	Gly	Ser	Asp	Pro				
		115					120					125							
Gln	Lys	Lys	Thr	Val	Cys	Ile	Tyr	Gly	His	Leu	Asp	Val	Gln	Pro	Ala				
	130					135					140								
Ala	Leu	Glu	Asp	Gly	Trp	Asp	Ser	Glu	Pro	Phe	Thr	Leu	Val	Glu	Arg				
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Asp	Gly	Lys	Leu	Tyr	Gly	Arg	Gly	Ser	Thr	Asp	Asp	Lys	Gly	Pro	Val				
			165					170				175							
Ala	Gly	Trp	Ile	Asn	Ala	Leu	Glu	Ala	Tyr	Gln	Lys	Thr	Gly	Gln	Glu				
		180					185					190							
Ile	Pro	Val	Asn	Val	Arg	Phe	Cys	Leu	Glu	Gly	Met	Glu	Glu	Ser	Gly				
	195						200				205								
Ser	Glu	Gly	Leu	Asp	Glu	Leu	Ile	Phe	Ala	Arg	Lys	Asp	Thr	Phe	Phe				
	210					215					220								
Lys	Asp	Val	Asp	Tyr	Val	Cys	Ile	Ser	Asp	Asn	Tyr	Trp	Leu	Gly	Lys				
225					230					235					240				
Lys	Lys	Pro	Cys	Ile	Thr	Tyr	Gly	Leu	Arg	Gly	Ile	Cys	Tyr	Phe	Phe				
			245					250				255							
Ile	Glu	Val	Glu	Cys	Ser	Asn	Lys	Asp	Leu	His	Ser	Gly	Val	Tyr	Gly				
	260						265					270							
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	275					280					285								
Leu	Val	Asp	Lys	Arg	Gly	Asn	Ile	Leu	Ile	Pro	Gly	Ile	Asn	Glu	Ala				
	290					295					300								
Val	Ala	Ala	Val	Thr	Glu	Glu	Glu	His	Lys	Leu	Tyr	Asp	Asp	Ile	Asp				
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Phe	Asp	Ile	Glu	Glu	Phe	Ala	Lys	Asp	Val	Gly	Ala	Gln	Ile	Leu	Leu				
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His	Ser	His	Lys	Lys	Asp	Ile	Leu	Met	His	Arg	Trp	Arg	Tyr	Pro	Ser				
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Leu	Ser	Leu	His	Gly	Ile	Glu	Gly	Ala	Phe	Ser	Gly	Ser	Gly	Ala	Lys				
	355					360					365								
Thr	Val	Ile	Pro	Lys	Lys	Val	Val	Gly	Lys	Phe	Ser	Ile	Arg	Leu	Val				
	370					375					380								

Pro  
385

&lt;210&gt; 5273

&lt;211&gt; 4580

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5273

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&lt;210&gt; 5274

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5274

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			20					25					30		
Val	Thr	Pro	Arg	Ile	Tyr	Val	Gly	Asn	Ala	Ser	Val	Ala	Gln	Asp	Ile
		35					40					45			
Pro	Lys	Leu	Gln	Lys	Leu	Gly	Ile	Thr	His	Val	Leu	Asn	Ala	Ala	Glu
	50					55					60				
Gly	Arg	Ser	Phe	Met	His	Val	Asn	Thr	Asn	Ala	Asn	Phe	Tyr	Lys	Asp

65		70		75		80									
Ser	Gly	Ile	Thr	Tyr	Leu	Gly	Ile	Lys	Ala	Asn	Asp	Thr	Gln	Glu	Phe
				85				90						95	
Asn	Leu	Ser	Ala	Tyr	Phe	Glu	Arg	Ala	Ala	Asp	Phe	Ile	Asp	Gln	Ala
			100					105						110	
Leu	Ala	Gln	Lys	Asn	Gly	Arg	Val	Leu	Val	His	Cys	Arg	Glu	Gly	Tyr
		115					120						125		
Ser	Arg	Ser	Pro	Thr	Leu	Val	Ile	Ala	Tyr	Leu	Met	Met	Arg	Gln	Lys
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Met	Asp	Val	Lys	Ser	Ala	Leu	Ser	Ile	Val	Arg	Gln	Asn	Arg	Glu	Ile
145					150					155				160	
Gly	Pro	Asn	Asp	Gly	Phe	Leu	Ala	Gln	Leu	Cys	Gln	Leu	Asn	Asp	Arg
			165					170						175	
Leu	Ala	Lys	Glu	Gly	Lys	Leu	Lys	Pro							
		180					185								

&lt;210&gt; 5275

&lt;211&gt; 810

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5275

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540
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660
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720
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810

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&lt;210&gt; 5276

&lt;211&gt; 125

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5276

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      20           25           30
Glu Glu Met Tyr Asp Ile Phe Gly Lys Tyr Gly Pro Ile Arg Gln Ile
      35           40           45
Arg Val Gly Asn Thr Pro Glu Thr Arg Gly Thr Ala Tyr Val Val Tyr
      50           55           60
Glu Asp Ile Phe Asp Ala Lys Asn Ala Cys Asp His Leu Ser Gly Phe
65           70           75           80
Asn Val Cys Asn Arg Tyr Leu Val Val Leu Tyr Tyr Asn Ala Asn Arg
      85           90           95
Ala Phe Gln Lys Met Asp Thr Lys Lys Lys Glu Glu Gln Leu Lys Leu
      100          105          110
Leu Lys Glu Lys Tyr Gly Ile Asn Thr Asp Pro Pro Lys
      115          120          125

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<210> 5277

<211> 612

<212> DNA

<213> Homo sapiens

<400> 5277

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240
tggcagaagt ggcagaacaa ggatgaccag ggcagcaccg tcggcaacgg ggaccagcac
300
ccactggggc tggacgaaga cctgctgggg cctggggtgg ccgagggcga gggagcacca
360
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420
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480
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612

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<210> 5278

<211> 123

<212> PRT

<213> Homo sapiens

&lt;400&gt; 5278

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 20 25 30  
 Val Lys Tyr Asp Pro His Thr Leu Thr Leu Ser Leu Pro Phe Tyr Ile  
 35 40 45  
 Ser Gln Cys Trp Thr Leu Gly Ser Val Leu Ala Leu Thr Trp Thr Val  
 50 55 60  
 Trp Arg Phe Phe Leu Arg Asp Ile Thr Leu Arg Tyr Lys Glu Thr Arg  
 65 70 75 80  
 Trp Gln Lys Trp Gln Asn Lys Asp Asp Gln Gly Ser Thr Val Gly Asn  
 85 90 95  
 Gly Asp Gln His Pro Leu Gly Leu Asp Glu Asp Leu Leu Gly Pro Gly  
 100 105 110  
 Val Ala Glu Gly Glu Gly Ala Pro Thr Pro Asn.  
 115 120

&lt;210&gt; 5279

&lt;211&gt; 1225

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5279

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 180  
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 240  
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 360  
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 420  
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 480  
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 540  
 gttcttcaga catcaaccga aaggcgaggca ccaatgggta cagcactctc aaaaatggag  
 600  
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 660  
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 900



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1140  
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<210> 5280

<211> 408

<212> PRT

<213> Homo sapiens

<400> 5280

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			20					25					30		
Gly	Lys	Leu	Val	Leu	Ile	Asp	Lys	Leu	Leu	Pro	Lys	Leu	Ile	Ala	Gly
		35					40					45			
Gly	His	Lys	Val	Leu	Ile	Phe	Ser	Gln	Met	Val	Arg	Cys	Leu	Asp	Ile
	50					55					60				
Leu	Glu	Asp	Tyr	Leu	Ile	Gln	Arg	Arg	Tyr	Thr	Tyr	Glu	Arg	Ile	Asp
65					70				75					80	
Gly	Arg	Val	Arg	Gly	Asn	Leu	Arg	Gln	Ala	Ala	Ile	Asp	Arg	Phe	Ser
				85					90					95	
Lys	Pro	Asp	Ser	Asp	Arg	Phe	Val	Phe	Leu	Leu	Cys	Thr	Arg	Ala	Gly
			100					105					110		
Gly	Leu	Gly	Ile	Asn	Leu	Thr	Ala	Ala	Asp	Thr	Cys	Ile	Ile	Phe	Asp
		115					120					125			
Ser	Asp	Trp	Asn	Pro	Gln	Asn	Asp	Leu	Gln	Ala	Gln	Ala	Arg	Cys	His
	130					135					140				
Arg	Ile	Gly	Gln	Ser	Lys	Ala	Val	Lys	Val	Tyr	Arg	Leu	Ile	Thr	Arg
145					150					155				160	
Asn	Ser	Tyr	Glu	Arg	Glu	Met	Phe	Asp	Lys	Ala	Ser	Leu	Lys	Leu	Gly
			165					170						175	
Leu	Asp	Lys	Ala	Val	Leu	Gln	Thr	Ser	Thr	Glu	Arg	Ala	Ala	Pro	Met
			180					185					190		
Gly	Thr	Ala	Leu	Ser	Lys	Met	Glu	Val	Glu	Asp	Leu	Leu	Arg	Lys	Gly
		195					200					205			
Ala	Tyr	Gly	Ala	Leu	Met	Asp	Glu	Glu	Asp	Glu	Gly	Ser	Lys	Phe	Cys
	210					215					220				
Glu	Glu	Asp	Ile	Asp	Gln	Ile	Leu	Gln	Arg	Arg	Thr	His	Thr	Ile	Thr
225					230					235				240	
Ile	Gln	Ser	Glu	Gly	Lys	Gly	Ser	Thr	Phe	Ala	Lys	Ala	Ser	Phe	Val
			245					250						255	
Ala	Ser	Gly	Asn	Arg	Thr	Asp	Ile	Ser	Leu	Asp	Asp	Pro	Asn	Phe	Trp
		260						265					270		
Gln	Lys	Trp	Ala	Lys	Ile	Ala	Glu	Leu	Asp	Thr	Glu	Ala	Lys	Asn	Glu

275	280	285
Lys Glu Ser Leu Val Ile Asp Arg Pro Arg Val Arg Lys Gln Thr Lys		
290	295	300
His Tyr Asn Ser Phe Glu Glu Asp Glu Leu Met Glu Phe Ser Glu Leu		
305	310	315
Asp Ser Asp Ser Asp Glu Arg Pro Thr Arg Ser Arg Arg Leu Asn Asp		
325	330	335
Lys Ala Arg Arg Tyr Leu Arg Ala Glu Cys Phe Arg Val Glu Lys Asn		
340	345	350
Leu Leu Ile Phe Gly Trp Gly Arg Trp Lys Asp Ile Leu Thr His Gly		
355	360	365
Arg Phe Lys Trp His Leu Asn Glu Lys Asp Met Glu Met Ile Cys Arg		
370	375	380
Ala Leu Leu Val Tyr Cys Val Lys His Tyr Lys Gly Asp Glu Lys Ile		
385	390	395
Lys Ser Phe Ile Trp Glu Leu Ile		400
405		

&lt;210&gt; 5281

&lt;211&gt; 336

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5281

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 120  
 aggcattcct ggtactcaca ggtctgacag ccacagttgg agacacagct atttcttcag  
 180  
 aagagaaaac acaacgcatg tcattaatga gacatcacat gggacaatca ttgtccaaag  
 240  
 aagttgcaca tgtcctcacc aaacctggag cagatcacga ttgggaaaac ctagagaaag  
 300  
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 336

&lt;210&gt; 5282

&lt;211&gt; 91

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5282

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Tyr Arg Ala Gln Ala Phe Leu Val Leu Thr Gly Leu Thr Ala Thr Val	
20	30
Gly Asp Thr Ala Ile Ser Ser Glu Glu Lys Thr Gln Arg Met Ser Leu	
35	45
Met Arg His His Met Gly Gln Ser Leu Ser Lys Glu Val Ala His Val	
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85

90

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<211> 1989  
<212> DNA  
<213> Homo sapiens

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240  
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 1920  
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 1980  
 ttctgctta  
 1989

&lt;210&gt; 5284

&lt;211&gt; 258

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5284

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Ser	Asp	Ala	Gly	Lys	Arg	Asn	Gly	Leu	Ile	Asn	Thr	Arg	Asn	Leu	Met
			20					25					30		
Ala	Glu	Ser	Arg	Asp	Gly	Leu	Val	Ser	Val	Tyr	Pro	Ala	Pro	Gln	Tyr
		35					40					45			
Gln	Ser	His	Arg	Val	Gly	Ala	Ser	Thr	Val	Pro	Ala	Ser	Leu	Asp	Ser
	50					55					60				
Ser	Arg	Ser	Glu	Pro	Met	Gln	Gln	Leu	Leu	Asp	Pro	Asn	Thr	Leu	Gln
65					70					75				80	
Gln	Ser	Val	Glu	Ser	Arg	Tyr	Arg	Pro	Asn	Ile	Ile	Leu	Tyr	Ser	Glu
			85						90					95	
Gly	Val	Leu	Arg	Ser	Trp	Gly	Asp	Gly	Val	Ala	Ala	Asp	Cys	Cys	Glu
			100					105					110		
Thr	Thr	Phe	Ile	Glu	Asp	Arg	Ser	Pro	Thr	Lys	Asp	Ser	Leu	Glu	Tyr
		115					120					125			
Pro	Asp	Gly	Lys	Phe	Ile	Asp	Leu	Ser	Ala	Asp	Asp	Ile	Lys	Ile	His
	130					135					140				
Thr	Leu	Ser	Tyr	Asp	Val	Glu	Glu	Glu	Glu	Glu	Phe	Gln	Glu	Leu	Glu
145					150					155				160	
Ser	Asp	Tyr	Ser	Ser	Asp	Thr	Glu	Ser	Glu	Asp	Asn	Phe	Leu	Met	Met
			165					170						175	
Pro	Pro	Arg	Asp	His	Leu	Gly	Leu	Ser	Val	Phe	Ser	Met	Leu	Cys	Cys
		180						185					190		
Phe	Trp	Pro	Leu	Gly	Ile	Ala	Ala	Phe	Tyr	Leu	Ser	His	Glu	Thr	Asn

	195		200		205										
Lys	Ala	Val	Ala	Lys	Gly	Asp	Leu	His	Gln	Ala	Ser	Thr	Ser	Ser	Arg
	210				215						220				
Arg	Ala	Leu	Phe	Leu	Ala	Val	Leu	Ser	Ile	Thr	Ile	Gly	Thr	Gly	Val
225					230					235					240
Tyr	Val	Gly	Val	Ala	Val	Ala	Leu	Ile	Ala	Tyr	Leu	Ser	Lys	Asn	Asn
			245						250					255	

His Leu

&lt;210&gt; 5285

&lt;211&gt; 2155

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5285

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gaggtgcctg ccggaggaag ccgctccgag gcggaagatg aggacgacga ggactacgtg
120
ccctatgtgc cgttacggca gcgccggcag ctactgctcc agaagctgct gcagcgaaga
180
cgcaagggag ctgcggagga agagcagcag gacagcggta gtgaaccccg gggagatgag
240
gacgacatcc cgctaggccc tcagtccaac gtcagcctcc tggatcagca ccagcacctt
300
aaagagaagg ctgaagcgcg caaagagtct gccaaaggaga agcagctgaa ggaagaagag
360
aagatcctgg agagtgttgc cgagggccga gcattgatgt cagtgaagga gatggctaag
420
ggcattacgt atgatgaccc catcaaaacc agctggactc caccctgtta tgttctgagc
480
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600
ggcctgaaga agaaaggcat tcaccacca acaccattc agatccaggg catccccacc
660
attctatctg gccgtgacat gataggcatc gctttcacgg gttcaggcaa gacactggtg
720
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1140

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 1320  
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 1380  
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 2155

&lt;210&gt; 5286

&lt;211&gt; 628

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5286

Xaa	Arg	Val	Gln	Gln	Arg	Met	Glu	Glu	Ser	Glu	Pro	Glu	Arg	Lys	Arg
1				5					10					15	
Ala	Arg	Thr	Asp	Glu	Val	Pro	Ala	Gly	Gly	Ser	Arg	Ser	Glu	Ala	Glu
			20					25					30		
Asp	Glu	Asp	Asp	Glu	Asp	Tyr	Val	Pro	Tyr	Val	Pro	Leu	Arg	Gln	Arg
		35					40					45			
Arg	Gln	Leu	Leu	Leu	Gln	Lys	Leu	Leu	Gln	Arg	Arg	Arg	Lys	Gly	Ala
		50				55					60				
Ala	Glu	Glu	Glu	Gln	Gln	Asp	Ser	Gly	Ser	Glu	Pro	Arg	Gly	Asp	Glu
65					70					75				80	
Asp	Asp	Ile	Pro	Leu	Gly	Pro	Gln	Ser	Asn	Val	Ser	Leu	Leu	Asp	Gln
			85					90					95		
His	Gln	His	Leu	Lys	Glu	Lys	Ala	Glu	Ala	Arg	Lys	Glu	Ser	Ala	Lys



4456

```

      530              535              540
Ala Cys Asp Glu Ser Val Leu Met Asp Leu Lys Ala Leu Leu Leu Glu
545              550              555              560
Ala Lys Gln Lys Val Pro Pro Val Leu Gln Val Leu His Cys Gly Asp
      565              570              575
Glu Ser Met Leu Asp Ile Gly Gly Glu Arg Gly Cys Ala Phe Cys Gly
      580              585              590
Gly Leu Gly His Arg Ile Thr Asp Cys Pro Lys Leu Glu Ala Met Gln
      595              600              605
Thr Lys Gln Val Ser Asn Ile Gly Arg Lys Asp Tyr Leu Ala His Ser
      610              615              620
Ser Met Asp Phe
625

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<210> 5287  
 <211> 581  
 <212> DNA  
 <213> Homo sapiens

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<400> 5287
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120
tcgggagcgg agttgcagaa tccaaggacc cattttgttc tttctccgca ctgctttatg
180
ggaggcatta tggcccccaa agacataatg acaaatactc atgctaaatc catcctcaat
240
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300
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360
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420
tctaccatgg aaattttatt ggactttgtg tacacagaaa cggtacatgt gacagtggag
480
aatgtacaag aactgcttcc tgcagcctgt ctgcttcagt tgaaagggtg gaaacaagcc
540
tgctgtgagt tcttagaaag tcagttggac ccttcacgcg t
581

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<210> 5288  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

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<400> 5288
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1      5      10      15
Glu Pro Pro Ala Ser Pro Ala Pro His Ser Ile Pro Thr Gly Trp Gly
20      25      30
Arg Ala Arg Cys Gly Cys Val Gly Ser Gly Ala Glu Leu Gln Asn Pro
35      40      45
Arg Thr His Phe Val Leu Ser Pro His Cys Phe Met Gly Gly Ile Met

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50 55 60  
 Ala Pro Lys Asp Ile Met Thr Asn Thr His Ala Lys Ser Ile Leu Asn  
 65 70 75 80  
 Ser Met Asn Ser Leu Arg Lys Ser Asn Thr Leu Cys Asp Val Thr Leu  
 85 90 95  
 Arg Val Glu Gln Lys Asp Phe Pro Ala His Arg Ile Val Leu Ala Ala  
 100 105 110  
 Cys Ser Asp Tyr Phe Cys Ala Met Phe Thr Ser Glu Leu Ser Glu Lys  
 115 120 125  
 Gly Lys Pro Tyr Val Asp Ile Gln Gly Leu Thr Ala Ser Thr Met Glu  
 130 135 140  
 Ile Leu Leu Asp Phe Val Tyr Thr Glu Thr Val His Val Thr Val Glu  
 145 150 155 160  
 Asn Val Gln Glu Leu Leu Pro Ala Ala Cys Leu Leu Gln Leu Lys Gly  
 165 170 175  
 Val Lys Gln Ala Cys Cys Glu Phe Leu Glu Ser Gln Leu Asp Pro Ser  
 180 185 190  
 Arg

&lt;210&gt; 5289

&lt;211&gt; 361

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5289

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 60  
 agcactatgg gaagttatgc tcagctatta taggactatg gaatggcatg aaaagcatga  
 120  
 caatgaggat actgcttcag cttctgaagg ggaagtatat gataggggtcc tgaagaaact  
 180  
 tattttgatc ggggctacat taaaaaagaa attagaacat ggacttacac gaatatggca  
 240  
 ggatgttcag ctaaaagtaa aaacctactt gcttggaaact gatttgtcta tattcaaata  
 300  
 tgatgatttc atctttgttt tggatataat cagcaggttg atgcaagttg gagaagaatt  
 360  
 c  
 361

&lt;210&gt; 5290

&lt;211&gt; 95

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5290

Met Leu Ser Tyr Tyr Arg Thr Met Glu Trp His Glu Lys His Asp Asn  
 1 5 10 15  
 Glu Asp Thr Ala Ser Ala Ser Glu Gly Glu Val Tyr Asp Arg Val Leu  
 20 25 30  
 Lys Lys Leu Ile Leu Ile Gly Ala Thr Leu Lys Lys Lys Leu Glu His  
 35 40 45  
 Gly Leu Thr Arg Ile Trp Gln Asp Val Gln Leu Lys Val Lys Thr Tyr

50	55	60
Leu Leu Gly Thr Asp	Leu Ser Ile Phe Lys Tyr Asp Asp Phe Ile Phe	
65	70	75
Val Leu Asp Ile Ile	Ser Arg Leu Met Gln Val Gly Glu Glu Phe	80
85	90	95

<210> 5291  
 <211> 767  
 <212> DNA  
 <213> Homo sapiens

<400> 5291  
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 60  
 aagatggcca cgcagaagac tcccagcagg gcgtacatgc ccagctctag ctcagtgaca  
 120  
 tgctgagggg cagggaccat ctctctctcc tcttctctct cctccctggc tttggtctcc  
 180  
 tccttctctg cctctctctc tgcccgtca aacttgcccc tcacacctgt gttgcccccg  
 240  
 acactgcctg ccacctgccg ttaccaccc atggtggctt ctgtggctgg tgggctccaa  
 300  
 gcagggctgg atggggagag caggggctgg agtggaggca gggggcagcc ccaccagggc  
 360  
 ggtgccagag gccaaaggca cacggtggcg gcccggcgn gcagggctcg ggcgggtgca  
 420  
 gagccacatg cagcggcagc ccctcggcgc ctgccccact caccaccacc ccgagctggg  
 480  
 caccctgctc ctcagctggc aggatggcac caggctctct ggctgaaacg gacagtccca  
 540  
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 600  
 agagggccac ctctgtggg gcacacagac acaggcagag acatgagagg gcacgcacgc  
 660  
 atgcacagag aaaccactcc cacagagaca ggccacatgg aggagagacc agagagaaaa  
 720  
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 767

<210> 5292  
 <211> 142  
 <212> PRT  
 <213> Homo sapiens

<400> 5292  
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 Val Ser Ser Phe Leu Ala Ser Ser Ser Ala Arg Ser Asn Leu Pro Leu  
 20 25 30  
 Thr Pro Val Leu Pro Pro Thr Leu Pro Ala Thr Cys Arg Leu Pro Pro  
 35 40 45  
 Met Val Ala Ser Val Ala Gly Gly Leu Gln Ala Gly Leu Asp Gly Glu  
 50 55 60  
 Ser Arg Gly Trp Ser Gly Gly Arg Gly Gln Pro His Pro Gly Gly Ala

65					70					75				80
Arg	Gly	Gln	Arg	His	Thr	Val	Ala	Ala	Pro	Ala	Xaa	Arg	Ala	Arg
				85					90				95	
Gly	Ala	Glu	Pro	His	Ala	Ala	Ala	Ala	Pro	Arg	Arg	Leu	Pro	His
			100					105				110		
Pro	Pro	Pro	Arg	Ala	Gly	His	Pro	Ala	Pro	Gln	Leu	Ala	Gly	Trp
		115				120					125			
Gln	Ala	Pro	Arg	Leu	Lys	Arg	Thr	Val	Pro	Val	Arg	Arg	Ser	
	130					135					140			

&lt;210&gt; 5293

&lt;211&gt; 1428

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5293

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 120  
 gcttcactgt tgctcttggc aacatccact tccgggagcg agtgccgttt cccccgctca  
 180  
 ccgcgggcta gggagcgtgg gattccggac tgtgagcggc tgtagtgcg tcgcagctgc  
 240  
 tggcgatccg gcgaccctcg gccggcagga cccgcgggcc acgcagccgg ggccttctca  
 300  
 acgcctcagt acctcggcgg gaccgccatg gttctgctgc acgtgaagcg gggcgacgag  
 360  
 agccagttcc tgctgcaggc gcctgggagt accgagctgg aggagctcac ggtgcaggtg  
 420  
 gcccggtct ataatgggcg gctcaagggt cagcgctct gctcagaaat ggaagaatta  
 480  
 gccgaacatg gcatatttct cctcctaata atgcaaggac tgaccgatga tcagattgaa  
 540  
 gaattgaaat tgaaggatga atgggggtgaa aaatgcgtac ccagcggagg tgcagtgttt  
 600  
 aaaaaggatg atattggacg aaggaatggg caagctccaa atgagaagat gaagcaagtg  
 660  
 ttaaagaaga ctatagaaga agccaaggca ataatatcta agaaacaagt ggaagccggt  
 720  
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 780  
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 900  
 tgggtgggcag ccaaggagct gagaagaacg aagaagcttt cagactacgt ggggaagaat  
 960  
 gaaaaaacca aaattatcgc caagattcag caaaggggac agggagctcc agcccgagag  
 1020  
 cctattatta gcagtgagga gcagaagcag ctgatgctgt actatcacag aagacaagag  
 1080  
 gagctcaaga gattggaaga aatgatgat gatgcctatt taaactcacc atgggcggat  
 1140

aacactgctt tgaaaagaca ttttcatgga gtgaaagaca taaagtggag accaagatga  
 1200  
 agttcaccag ctgatgacac ttccaaagag attagctcac ctttctccta ggcaattata  
 1260  
 atttaaaaaa aaaaaaaagg ccacttactg ccctctgtaa aagatgttaa catttctagt  
 1320  
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 1380  
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 1428

<210> 5294

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5294

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Arg	Val	Tyr	Asn	Gly	Arg	Leu	Lys	Val	Gln	Arg	Leu	Cys	Ser	Glu	Met	35	40	45	
Glu	Glu	Leu	Ala	Glu	His	Gly	Ile	Phe	Leu	Pro	Pro	Asn	Met	Gln	Gly	50	55	60	
Leu	Thr	Asp	Asp	Gln	Ile	Glu	Glu	Leu	Lys	Leu	Lys	Asp	Glu	Trp	Gly	65	70	75	80
Glu	Lys	Cys	Val	Pro	Ser	Gly	Gly	Ala	Val	Phe	Lys	Lys	Asp	Asp	Ile	85	90	95	
Gly	Arg	Arg	Asn	Gly	Gln	Ala	Pro	Asn	Glu	Lys	Met	Lys	Gln	Val	Leu	100	105	110	
Lys	Lys	Thr	Ile	Glu	Glu	Ala	Lys	Ala	Ile	Ile	Ser	Lys	Lys	Gln	Val	115	120	125	
Glu	Ala	Gly	Val	Cys	Val	Thr	Met	Glu	Met	Val	Lys	Asp	Ala	Leu	Asp	130	135	140	
Gln	Leu	Arg	Gly	Ala	Val	Met	Ile	Val	Tyr	Pro	Met	Gly	Leu	Pro	Pro	145	150	155	160
Tyr	Asp	Pro	Ile	Arg	Met	Glu	Phe	Glu	Asn	Lys	Glu	Asp	Leu	Ser	Gly	165	170	175	
Thr	Gln	Ala	Gly	Leu	Asn	Val	Ile	Lys	Glu	Ala	Glu	Ala	Gln	Leu	Trp	180	185	190	
Trp	Ala	Ala	Lys	Glu	Leu	Arg	Arg	Thr	Lys	Lys	Leu	Ser	Asp	Tyr	Val	195	200	205	
Gly	Lys	Asn	Glu	Lys	Thr	Lys	Ile	Ile	Ala	Lys	Ile	Gln	Gln	Arg	Gly	210	215	220	
Gln	Gly	Ala	Pro	Ala	Arg	Glu	Pro	Ile	Ile	Ser	Ser	Glu	Glu	Gln	Lys	225	230	235	240
Gln	Leu	Met	Leu	Tyr	Tyr	His	Arg	Arg	Gln	Glu	Glu	Leu	Lys	Arg	Leu	245	250	255	
Glu	Glu	Asn	Asp	Asp	Asp	Ala	Tyr	Leu	Asn	Ser	Pro	Trp	Ala	Asp	Asn	260	265	270	
Thr	Ala	Leu	Lys	Arg	His	Phe	His	Gly	Val	Lys	Asp	Ile	Lys	Trp	Arg	275	280	285	
Pro	Arg																		



290

&lt;210&gt; 5295

&lt;211&gt; 1451

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5295

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120  
gacagtaacg agcagtgctg gccgggcccc actttcagag ggggcggaag ggcattctga  
180  
cacgtgtcat atggtaagag ggcattccac tcacccaggc ctggtgcagg actctgcaag  
240  
gccctcctga gtaaagagtg gccacgaagg gctgctaggc agcacctact cttggaatca  
300  
agcagggaaa aagtgcacaaa ttggagctgg cgggaggtgt gtgtgcctgc cccacagatg  
360  
gctgtggtga gccacaaagc accaagattc tgttcttcat tcagcaacca cccatgagcc  
420  
tcctgcttta ttccaatcgc atggcaccag cctgaaaacc tctctccctt ctgagaggaa  
480  
tgctggaatg aactccact ctgcccctcc ctccctcctt ccttgctcag ggtccatgtg  
540  
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600  
gccccacaca cccactggtg gctaccaagg cccgtcaata gatcttgtgt ccaccgagcc  
660  
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720  
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780  
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900  
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960  
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cagatgatct tgatcttttt caatcatttc ctttgtctca gggtgaggca tcttgataaa  
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1320  
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1380

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 1440  
 ccttcacgcg t  
 1451

<210> 5296  
 <211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 5296  
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 Leu Asp Thr Lys Arg Asn Gln Asn Arg Glu Gly Leu Arg Ala Leu Gln  
 35 40 45  
 Lys Asp Leu Ser Leu Ser Glu Asp Val Met Val Cys Phe Gly Asn Met  
 50 55 60  
 Phe Ile Lys Met Pro His Pro Glu Thr Lys Glu Met Ile Glu Lys Asp  
 65 70 75 80  
 Gln Asp His Leu Asp Lys Glu Ile Glu Lys Leu Arg Lys Gln Leu Lys  
 85 90 95  
 Val Lys Val Asn Arg Leu Phe Glu Ala Gln Gly Lys Pro Glu Leu Lys  
 100 105 110  
 Gly Phe Asn Leu Asn Pro Leu Asn Gln Asp Glu Leu Lys Ala Leu Lys  
 115 120 125  
 Val Ile Leu Lys Gly  
 130

<210> 5297  
 <211> 5318  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5298

&lt;211&gt; 663

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5298

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&lt;211&gt; 368

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&lt;213&gt; Homo sapiens

&lt;400&gt; 5299

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&lt;210&gt; 5302

&lt;211&gt; 1339

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5302

Ala	Pro	Pro	Ala	Gly	Arg	Arg	Arg	Met	Gln	Ala	Ala	Pro	Arg	Ala	Gly
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Cys	Gly	Ala	Ala	Leu	Leu	Leu	Trp	Ile	Val	Ser	Ser	Cys	Leu	Cys	Arg
			20					25				30			
Ala	Trp	Thr	Ala	Pro	Ser	Thr	Ser	Gln	Lys	Cys	Asp	Glu	Pro	Leu	Val
		35					40				45				
Ser	Gly	Leu	Pro	His	Val	Ala	Phe	Ser	Ser	Ser	Ser	Ser	Ile	Ser	Gly

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Ser Tyr Ser Pro Gly Tyr Ala Lys Ile Asn Lys Arg Gly Gly Ala Gly		
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Gly Trp Ser Pro Ser Asp Ser Asp His Tyr Gln Trp Leu Gln Val Asp		80
	85	90
Phe Gly Asn Arg Lys Gln Ile Ser Ala Ile Ala Thr Gln Gly Arg Tyr		95
	100	105
Ser Ser Ser Asp Trp Val Thr Gln Tyr Arg Met Leu Tyr Ser Asp Thr		110
	115	120
Gly Arg Asn Trp Lys Pro Tyr His Gln Asp Gly Asn Ile Trp Ala Phe		125
	130	135
Pro Gly Asn Ile Asn Ser Asp Gly Val Val Arg His Glu Leu Gln His		140
	145	150
Pro Ile Ile Ala Arg Tyr Val Arg Ile Val Pro Leu Asp Trp Asn Gly		155
	165	170
Glu Gly Arg Ile Gly Leu Arg Ile Glu Val Tyr Gly Cys Ser Tyr Trp		175
	180	185
Ala Asp Val Ile Asn Phe Asp Gly His Val Val Leu Pro Tyr Arg Phe		190
	195	200
Arg Asn Lys Lys Met Lys Thr Leu Lys Asp Val Ile Ala Leu Asn Phe		205
	210	215
Lys Thr Ser Glu Ser Glu Gly Val Ile Leu His Gly Glu Gly Gln Gln		220
	225	230
Gly Asp Tyr Ile Thr Leu Glu Leu Lys Lys Ala Lys Leu Val Leu Ser		235
	245	250
Leu Asn Leu Gly Ser Asn Gln Leu Gly Pro Ile Tyr Gly His Thr Ser		255
	260	265
Val Met Thr Gly Ser Leu Leu Asp Asp His His Trp His Ser Val Val		270
	275	280
Ile Glu Arg Gln Gly Arg Ser Ile Asn Leu Thr Leu Asp Arg Ser Met		285
	290	295
Gln His Phe Arg Thr Asn Gly Glu Phe Asp Tyr Leu Asp Leu Asp Tyr		300
	305	310
Glu Ile Thr Phe Gly Gly Ile Pro Phe Ser Gly Lys Pro Ser Ser Ser		315
	325	330
Ser Arg Lys Asn Phe Lys Gly Cys Met Glu Ser Ile Asn Tyr Asn Gly		335
	340	345
Val Asn Ile Thr Asp Leu Ala Arg Arg Lys Lys Leu Glu Pro Ser Asn		350
	355	360
Val Gly Asn Leu Ser Phe Ser Cys Val Glu Pro Tyr Thr Val Pro Val		365
	370	375
Phe Phe Asn Ala Thr Ser Tyr Leu Glu Val Pro Gly Arg Leu Asn Gln		380
	385	390
Asp Leu Phe Ser Val Ser Phe Gln Phe Arg Thr Trp Asn Pro Asn Gly		395
	405	410
Leu Leu Val Phe Ser His Phe Ala Asp Asn Leu Gly Asn Val Glu Ile		415
	420	425
Asp Leu Thr Glu Ser Lys Val Gly Val His Ile Asn Ile Thr Gln Thr		430
	435	440
Lys Met Ser Gln Ile Asp Ile Ser Ser Gly Ser Gly Leu Asn Asp Gly		445
	450	455
Gln Trp His Glu Val Arg Phe Leu Ala Lys Glu Asn Phe Ala Ile Leu		460
	465	470
Thr Ile Asp Gly Asp Glu Ala Ser Ala Val Arg Thr Asn Ser Pro Leu		475
	480	



4475



915	920	925
Gln Leu Phe Val Gly Gly Ala Gly Gly Gln Gln Gly Phe Leu Gly Cys		
930	935	940
Ile Arg Ser Leu Arg Met Asn Gly Val Thr Leu Asp Leu Glu Glu Arg		
945	950	955
Ala Lys Val Thr Ser Gly Phe Ile Ser Gly Cys Ser Gly His Cys Thr		
965	970	975
Ser Tyr Gly Thr Asn Cys Glu Asn Gly Gly Lys Cys Leu Glu Arg Tyr		
980	985	990
His Gly Tyr Ser Cys Asp Cys Ser Asn Thr Ala Tyr Asp Gly Thr Phe		
995	1000	1005
Cys Asn Lys Asp Val Gly Ala Phe Phe Glu Glu Gly Met Trp Leu Arg		
1010	1015	1020
Tyr Asn Phe Gln Ala Pro Ala Thr Asn Ala Arg Asp Ser Ser Ser Arg		
1025	1030	1035
Val Asp Asn Ala Pro Asp Gln Gln Asn Ser His Pro Asp Leu Ala Gln		
1045	1050	1055
Glu Glu Ile Arg Phe Ser Phe Ser Thr Thr Lys Ala Pro Cys Ile Leu		
1060	1065	1070
Leu Tyr Ile Ser Ser Phe Thr Thr Asp Phe Leu Ala Val Leu Val Lys		
1075	1080	1085
Pro Thr Gly Ser Leu Gln Ile Arg Tyr Asn Leu Gly Gly Thr Arg Glu		
1090	1095	1100
Pro Tyr Asn Ile Asp Val Asp His Arg Asn Met Ala Asn Gly Gln Pro		
1105	1110	1115
His Ser Val Asn Ile Thr Arg His Glu Lys Thr Ile Phe Leu Lys Leu		
1125	1130	1135
Asp His Tyr Pro Ser Val Ser Tyr His Leu Pro Ser Ser Ser Asp Thr		
1140	1145	1150
Leu Phe Asn Ser Pro Lys Ser Leu Phe Leu Gly Lys Val Ile Glu Thr		
1155	1160	1165
Gly Lys Ile Asp Gln Glu Ile His Lys Tyr Asn Thr Pro Gly Phe Thr		
1170	1175	1180
Gly Cys Leu Ser Arg Val Gln Phe Asn Gln Ile Ala Pro Leu Lys Ala		
1185	1190	1195
Ala Leu Arg Gln Thr Asn Ala Ser Ala His Val His Ile Gln Gly Glu		
1205	1210	1215
Leu Val Glu Ser Asn Cys Gly Ala Ser Pro Leu Thr Leu Ser Pro Met		
1220	1225	1230
Ser Ser Ala Thr Asp Pro Trp His Leu Asp His Leu Asp Ser Ala Ser		
1235	1240	1245
Ala Asp Phe Pro Tyr Asn Pro Gly Gln Gly Gln Ala Ile Arg Asn Gly		
1250	1255	1260
Val Asn Arg Asn Ser Ala Ile Ile Gly Gly Val Ile Ala Val Val Ile		
1265	1270	1275
Phe Thr Ile Leu Cys Thr Leu Val Phe Leu Ile Arg Tyr Met Phe Arg		
1285	1290	1295
His Lys Gly Thr Tyr His Thr Asn Glu Ala Lys Gly Ala Glu Ser Ala		
1300	1305	1310
Glu Ser Ala Asp Ala Ala Ile Met Asn Asn Asp Pro Asn Phe Thr Glu		
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Thr Ile Asp Glu Ser Lys Lys Glu Trp Leu Ile		
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 <211> 334  
 <212> DNA  
 <213> Homo sapiens

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<210> 5304  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Glu Gly Leu Ala Asp Ser Gly Pro Gly Gly Ala Gly Arg Pro Ala Ala  
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 Val Ala Ala Arg Glu Gly Ser Thr Glu Phe Asp Trp Gly Asp Glu Thr  
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 Ser Arg Asp Ser Gly Gly Gln Gln Cys Gly Asp Ser Trp Arg Leu  
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<210> 5305  
 <211> 582  
 <212> DNA  
 <213> Homo sapiens

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<210> 5306

<211> 62

<212> PRT

<213> Homo sapiens

<400> 5306

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Gln	Leu	Ala	Gly	Pro	Ser	Leu	Trp	Leu	Glu	Leu	Val	Cys	Val	Tyr	Leu
			20					25					30		
Ile	Lys	Ser	His	Arg	Cys	Leu	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
		35					40					45			
Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	
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<210> 5307

<211> 1551

<212> DNA

<213> Homo sapiens

<400> 5307

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 240  
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&lt;210&gt; 5308

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5308

Met	Leu	Gly	Val	Gly	Ser	Glu	Glu	Leu	Thr	Gln	Gly	Arg	Asp	Gly	Ser
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Leu	Leu	Ile	Asp	Leu	Thr	Trp	Thr	His	Arg	Gly	Gly	Lys	Thr	Cys	Gly
			20					25					30		
Asp	His	His	Arg	Gly	His	Gly	Pro	Thr	Ser	Val	Ile	Trp	Glu	Thr	Gly
		35				40					45				
Leu	Gly	Arg	Gly	Gly	Asp	Phe	Pro	Lys	Ser	Pro	Ser	Ile	His	Asp	Arg
	50				55					60					
Gly	Arg	Ala	Trp	Glu	Leu	Gly	Thr	Gln	Gly	Ser	Ser	Lys	Arg	Ser	Arg
65				70				75					80		
Ser	Leu	Cys	Tyr	Pro	Gln	Ile	His	Lys	Leu	Arg	Ile	Thr	Cys	Ile	His
			85					90					95		
Phe	Pro	Pro	Pro	Trp	Thr	Leu	Cys	Phe	Glu	Leu	Phe	Cys	Leu	Pro	Asp
			100					105					110		

&lt;210&gt; 5309

&lt;211&gt; 2078

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5309

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<210> 5310

<211> 359

<212> PRT

<213> Homo sapiens

<400> 5310

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Thr	Asn	Arg	Lys	Ala	Asn	Glu	Ser	Cys	Ser	Asn	Thr	Ala	Pro	Ser	Leu
			20					25					30		
Thr	Val	Pro	Glu	Cys	Ala	Ile	Cys	Leu	Gln	Thr	Cys	Val	His	Pro	Val
		35					40					45			
Ser	Leu	Pro	Cys	Lys	His	Val	Phe	Cys	Tyr	Leu	Cys	Val	Lys	Gly	Ala
	50					55					60				
Ser	Trp	Leu	Gly	Lys	Arg	Cys	Ala	Leu	Cys	Arg	Gln	Glu	Ile	Pro	Glu
65					70					75				80	
Asp	Phe	Leu	Asp	Lys	Pro	Thr	Leu	Leu	Ser	Pro	Glu	Glu	Leu	Lys	Ala
				85					90					95	
Ala	Ser	Arg	Gly	Asn	Gly	Glu	Tyr	Ala	Trp	Tyr	Tyr	Glu	Gly	Arg	Asn
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Gly	Trp	Trp	Gln	Tyr	Asp	Glu	Arg	Thr	Ser	Arg	Glu	Leu	Glu	Asp	Ala
		115					120					125			
Phe	Ser	Lys	Gly	Lys	Lys	Asn	Thr	Glu	Met	Leu	Ile	Ala	Gly	Phe	Leu
	130					135					140				
Tyr	Val	Ala	Asp	Leu	Glu	Asn	Met	Val	Gln	Tyr	Arg	Arg	Asn	Glu	His
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Gly	Arg	Arg	Arg	Lys	Ile	Lys	Arg	Asp	Ile	Ile	Asp	Ile	Pro	Lys	Lys
				165				170					175		
Gly	Val	Ala	Gly	Leu	Arg	Leu	Asp	Cys	Asp	Ala	Asn	Thr	Val	Asn	Leu
			180					185					190		
Ala	Arg	Glu	Ser	Ser	Ala	Asp	Gly	Ala	Asp	Ser	Val	Ser	Ala	Gln	Ser
		195					200					205			
Gly	Ala	Ser	Val	Gln	Pro	Leu	Val	Ser	Ser	Val	Arg	Pro	Leu	Thr	Ser

210	215	220
Val Asp Gly Gln Leu Thr Ser Pro Ala Thr Pro Ser Pro Asp Ala Ser		
225	230	235
Thr Ser Leu Glu Asp Ser Phe Ala His Leu Gln Leu Ser Gly Asp Asn		240
	245	250
Thr Ala Glu Arg Ser His Arg Gly Glu Gly Glu Glu Asp His Glu Ser		255
	260	265
Pro Ser Ser Gly Arg Val Pro Ala Pro Asp Thr Ser Ile Glu Glu Thr		270
	275	280
Glu Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser Ala Val Val Ala		285
	290	295
Gln His Ser Leu Thr Gln Gln Arg Leu Leu Val Ser Asn Ala Asn Gln		300
305	310	315
Thr Val Pro Asp Arg Ser Asp Arg Ser Gly Thr Asp Arg Ser Val Ala		320
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Gln Cys Thr Val Thr Glu Val		350
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 <212> DNA  
 <213> Homo sapiens

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 180  
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 420  
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 480  
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 572

<210> 5312  
 <211> 190  
 <212> PRT  
 <213> Homo sapiens

<400> 5312  
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Cys Thr Gly Ser Leu His Phe Val His Gln Ala Tyr Leu Gln Gln Trp			
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Ile Lys Ser Ser Asp Thr Arg Cys Cys Glu Leu Cys Lys Tyr Glu Phe			
	35	40	45
Ile Met Glu Thr Lys Leu Lys Pro Leu Arg Lys Trp Glu Lys Leu Gln			
	50	55	60
Met Thr Ser Ser Glu Arg Arg Lys Ile Met Cys Ser Val Thr Phe His			
65	70	75	80
Val Ile Ala Ile Thr Cys Val Val Trp Ser Leu Tyr Val Leu Ile Asp			
	85	90	95
Arg Pro Ala Glu Glu Ile Lys Gln Gly Gln Ala Thr Gly Ile Leu Glu			
	100	105	110
Trp Pro Phe Trp Thr Lys Leu Val Val Ala Ile Gly Phe Thr Arg			
	115	120	125
Gly Leu Leu Phe Met Tyr Val Gln Cys Lys Val Tyr Val Gln Leu Trp			
	130	135	140
Lys Arg Leu Lys Ala Tyr Asn Arg Val Ile Tyr Val Gln Asn Cys Pro			
145	150	155	160
Glu Thr Ser Lys Lys Asn Ile Phe Glu Lys Ser Pro Leu Thr Glu Pro			
	165	170	175
Asn Phe Glu Asn Lys His Gly Tyr Gly Ile Cys His Ser Asp			
	180	185	190

&lt;210&gt; 5313

&lt;211&gt; 322

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5313

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 322

&lt;210&gt; 5314

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5314

Arg Gly Arg Arg Glu Glu Glu Gly Asp Lys Arg Ser Val Ala Pro Gln			
1	5	10	15
Thr Arg Val Leu Lys Gly Val Met Arg Val Gly Ile Leu Ala Lys Gly			
	20	25	30
Leu Leu Leu Arg Gly Asp Arg Asn Val Arg Leu Ala Leu Leu Cys Ser			

4484

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1440  
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1500  
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2298

&lt;210&gt; 5316

&lt;211&gt; 544

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5316

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Gln	Lys	Leu	Asn	Cys	Arg	Gln	Ile	Pro	Lys	Leu	Leu	Arg	Gln	Leu	Gln
			20					25					30		
Glu	Phe	Thr	Asp	Leu	Gly	His	Arg	Leu	Asp	Cys	Leu	Asp	Leu	Lys	Gly
		35					40					45			
Glu	Lys	Leu	Asp	Tyr	Lys	Thr	Cys	Glu	Ala	Leu	Glu	Glu	Val	Phe	Lys

50	55	60
Arg Leu Gln Phe Lys Val Val Asp Leu Glu Gln Thr Asn Leu Asp Glu		
65	70	75
Asp Gly Ala Ser Ala Leu Phe Asp Met Ile Glu Tyr Tyr Glu Ser Ala		
85	90	95
Thr His Leu Asn Ile Ser Phe Asn Lys His Ile Gly Thr Arg Gly Trp		
100	105	110
Gln Ala Ala Ala His Met Met Arg Lys Thr Ser Cys Leu Gln Tyr Leu		
115	120	125
Asp Ala Arg Asn Thr Pro Leu Leu Asp His Ser Ala Pro Phe Val Ala		
130	135	140
Arg Ala Leu Arg Ile Arg Ser Ser Leu Ala Val Leu His Leu Glu Asn		
145	150	155
Ala Ser Leu Ser Gly Arg Pro Leu Met Leu Leu Ala Thr Ala Leu Lys		
165	170	175
Met Asn Met Asn Leu Arg Glu Leu Tyr Leu Ala Asp Asn Lys Leu Asn		
180	185	190
Gly Leu Gln Asp Ser Ala Gln Leu Gly Asn Leu Leu Lys Phe Asn Cys		
195	200	205
Ser Leu Gln Ile Leu Asp Leu Arg Asn Asn His Val Leu Asp Ser Gly		
210	215	220
Leu Ala Tyr Ile Cys Glu Gly Leu Lys Glu Gln Arg Lys Gly Leu Val		
225	230	235
Thr Leu Val Leu Trp Asn Asn Gln Leu Thr His Thr Gly Met Ala Phe		
245	250	255
Leu Gly Met Thr Leu Ser His Thr Gln Ser Leu Glu Thr Leu Asn Leu		
260	265	270
Gly His Asn Pro Ile Gly Asn Glu Gly Val Arg His Leu Lys Asn Gly		
275	280	285
Leu Ile Ser Asn Arg Ser Val Leu Arg Leu Gly Leu Ala Ser Thr Lys		
290	295	300
Leu Thr Cys Glu Gly Ala Val Ala Val Ala Glu Phe Ile Ala Glu Ser		
305	310	315
Pro Arg Leu Leu Arg Leu Asp Leu Arg Glu Asn Glu Ile Lys Thr Gly		
325	330	335
Gly Leu Met Ala Leu Ser Leu Ala Leu Lys Val Asn His Ser Leu Leu		
340	345	350
Arg Leu Asp Leu Asp Arg Glu Pro Lys Lys Glu Ala Val Lys Ser Phe		
355	360	365
Ile Glu Thr Gln Lys Ala Leu Leu Ala Glu Ile Gln Asn Gly Cys Lys		
370	375	380
Arg Asn Leu Val Leu Ala Arg Glu Arg Glu Glu Lys Glu Gln Pro Pro		
385	390	395
Gln Leu Ser Ala Ser Met Pro Glu Thr Thr Ala Thr Glu Pro Gln Pro		
405	410	415
Asp Asp Glu Pro Ala Ala Gly Val Gln Asn Gly Ala Pro Ser Pro Ala		
420	425	430
Pro Ser Pro Asp Ser Asp Ser Asp Ser Asp Ser Asp Gly Glu Glu Glu		
435	440	445
Glu Glu Glu Glu Gly Glu Arg Asp Glu Thr Pro Ser Gly Ala Ile Asp		
450	455	460
Thr Arg Asp Thr Gly Ser Ser Glu Pro Gln Pro Pro Pro Glu Pro Pro		
465	470	475
Arg Ser Gly Pro Pro Leu Pro Asn Gly Leu Lys Pro Glu Phe Ala Leu		

				485					490					495					
Ala	Leu	Pro	Pro	Glu	Pro	Pro	Pro	Gly	Pro	Glu	Val	Lys	Gly	Gly	Ser				
			500					505						510					
Cys	Gly	Leu	Glu	His	Glu	Leu	Ser	Cys	Ser	Lys	Asn	Glu	Lys	Glu	Leu				
		515					520					525							
Glu	Glu	Leu	Leu	Leu	Glu	Ala	Ser	Gln	Glu	Ser	Gly	Gln	Glu	Thr	Leu				
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&lt;210&gt; 5317

&lt;211&gt; 889

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5317

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889

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&lt;210&gt; 5318

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5318

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Arg	Pro	Cys	Val	Ser	Gly	Thr	Val	Pro	Ser	Ser	Cys	Gln	Leu	Gly	Gly				

	20		25		30										
Pro	Thr	Ser	Pro	Thr	Ser	Ala	Ala	Ser	Arg	Ala	Cys	Gly	Ser	Arg	Gly
	35		40		45										
Ala	Ala	Thr	Trp	Trp	Ser	Arg	Ser	Ser	Gly	Ser	Thr	Thr	Leu	Arg	Arg
	50		55		60										
Pro	Ser	Trp	Ala	Ser	Ser	Ser	Thr	Arg	Ala	Ser	Thr	Gly	Thr	Arg	Ser
65				70				75						80	
Pro	Ala	Ala	Ala	Ser	Arg	Arg	Pro	Cys	Gly	Ser	Pro	Ala	Arg	Gly	Arg
			85					90					95		
Thr	Ser	Trp	Ser	Ala	Arg	Tyr	Thr	Ser	Pro	Arg	Met	Trp	Thr	Lys	Met
	100						105					110			
Thr	Cys	Arg	Arg	Cys	Arg	Thr	Ser	Ala	Trp	Trp	Trp	Ala	Trp	Ser	Ser
	115						120					125			
Met	Ser	Arg	Cys												
	130														

&lt;210&gt; 5319

&lt;211&gt; 4231

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5319

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4231

<210> 5320

<211> 96

<212> PRT

<213> Homo sapiens

<400> 5320

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			20					25					30		
Arg	Ser	Leu	Ala	Leu	Xaa	Thr	Gln	Ala	Gly	Val	Leu	Trp	Leu	Asp	Leu
		35					40					45			
Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Arg	Phe	Lys	Gln	Phe	Ser	Cys	Pro
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<213> Homo sapiens

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&lt;210&gt; 5322

&lt;211&gt; 209

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5322

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 <212> DNA  
 <213> Homo sapiens



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&lt;210&gt; 5326

&lt;211&gt; 234

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5326

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Ser	Lys	Arg	Leu	Ser	Trp	Lys	Ile	His	Met	Pro	Ala	Ala	Leu	Val	Ala
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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5328

Glu	His	Ser	Gly	Leu	Tyr	Val	Asn	Asn	Asn	Gly	Ile	Ile	Ser	Phe	Leu
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			20					25					30		
Arg	Cys	Val	Val	Ala	Ala	Phe	Trp	Ala	Asp	Val	Asp	Asn	Arg	Arg	Ala
		35					40					45			
Gly	Asp	Val	Tyr	Tyr	Arg	Glu	Ala	Thr	Asp	Pro	Ala	Met	Leu	Arg	Arg

50	55	60
Ala Thr Glu Asp Val Arg His Tyr Phe Pro Glu Leu Leu Asp Phe Asn		
65	70	75
Ala Thr Trp Val Phe Val Ala Thr Trp Tyr Arg Val Thr Phe Phe Gly		80
	85	90
Gly Ser Ser Ser Ser Pro Val Asn Thr Phe Gln Thr Val Leu Ile Thr		95
	100	105
Asp Gly Lys Leu Ser Phe Thr Ile Phe Asn Tyr Glu Ser Ile Val Trp		110
	115	120
Thr Thr Gly Thr His Ala Ser Ser Gly Gly Asn Ala Thr Gly Leu Gly		125
	130	135
Gly Ile Ala Ala Gln Ala Gly Phe Asn Ala Gly Asp Gly Gln Arg Tyr		140
145	150	155
Phe Ser Ile Pro Gly Ser Arg Thr Ala Asp Met Ala Glu Val Glu Thr		160
	165	170
Thr Thr Asn Val Gly Val Pro Gly Arg Trp Ala Phe Arg Ile Asp Asp		175
	180	185
Ala Gln Val Arg Val Gly Gly Cys Gly His Thr Thr Ser Val Cys Leu		190
	195	200
Ala Leu Arg Pro Cys Leu Asn Gly Gly Lys Cys Ile Asp Asp Cys Val		205
	210	215
Thr Gly Asn Pro Ser Tyr Thr Cys Ser Cys Leu Ser Gly Phe Thr Gly		220
225	230	235
Arg Arg Cys His Leu Asp Val Asn Glu Cys Ala Ser Gln Pro Cys Gln		240
	245	250
Asn Gly Gly Thr Cys Thr His Gly Ile Asn Ser Phe Arg Cys Gln Cys		255
	260	265
Pro Ala Gly Phe Gly Gly Pro Thr Cys Glu Thr Ala Gln Ser Pro Cys		270
	275	280
Asp Thr Lys Glu Cys Gln His Gly Gly Gln Cys Gln Val Glu Asn Gly		285
	290	295
Ser Ala Val Cys Val Cys Gln Ala Gly Tyr Thr Gly Ala Ala Cys Glu		300
305	310	315
Met Asp Val Asp Asp Cys Ser Pro Asp Pro Cys Leu Asn Gly Gly Ser		320
	325	330
Cys Val Asp Leu Val Gly Asn Tyr Thr Cys Leu Cys Ala Glu Pro Phe		335
	340	345
Lys Gly Leu Arg Cys Glu Thr Gly Asp His Pro Val Pro His Ala Cys		350
	355	360
Leu Ser Ala Pro Cys His Asn Gly Gly Thr Cys Val Asp Ala Asp Gln		365
	370	375
Gly Tyr Val Cys Glu Cys Pro Glu Gly Phe Met Gly Leu Asp Cys Arg		380
385	390	395
Glu Arg Val Xaa Pro Met Thr Val Ser Ala Ala Thr Glu Ala Asp Ala		400
	405	410
Trp Ala Pro Thr Pro Pro Ser Ala His Ala Pro Cys Gly Xaa Ser Leu		415
	420	425
Gly Phe Ser Val Asn Leu Lys Ser Gln Pro Xaa Pro Cys Asn Met Asn		430
	435	440
Thr Gln Cys Pro Asp Gly Gly Tyr Cys Met Glu His Gly Gly Ser Tyr		445
	450	455
Leu Cys Val Cys His Thr Asp His Asn Ala Ser His Ser Leu Pro Ser		460
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Pro Cys Asp Ser Asp Pro Cys Phe Asn Gly Gly Ser Cys Asp Ala His		480

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<210> 5329
<211> 2582
<212> DNA
<213> Homo sapiens
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 2582

<210> 5330  
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 <213> Homo sapiens

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 Ala Leu Arg Lys Lys Glu Leu Asp Glu Glu Glu Ser Ile Arg Lys Lys  
 35 40 45  
 Ala Val Gln Phe Gly Thr Gly Glu Leu Cys Asp Ala Ile Ser Ala Val  
 50 55 60  
 Glu Glu Lys Val Ser Tyr Leu Arg Pro Leu Asp Phe Glu Glu Ala Arg  
 65 70 75 80  
 Glu Leu Phe Leu Leu Gly Gln His Tyr Val Phe Glu Ala Lys Glu Phe  
 85 90 95  
 Phe Gln Ile Asp Gly Tyr Val Thr Asp His Ile Glu Val Val Gln Asp  
 100 105 110  
 His Ser Ala Leu Phe Lys Val Leu Ala Phe Phe Glu Thr Asp Met Glu  
 115 120 125  
 Arg Arg Cys Lys Met His Lys Arg Arg Ile Ala Met Leu Glu Pro Leu  
 130 135 140  
 Thr Val Asp Leu Asn Pro Gln Tyr Tyr Leu Leu Val Asn Arg Gln Ile  
 145 150 155 160  
 Gln Phe Glu Ile Ala His Ala Tyr Tyr Asp Met Met Asp Leu Lys Val  
 165 170 175  
 Ala Ile Ala Asp Arg Leu Arg Asp Pro Asp Ser His Ile Val Lys Lys  
 180 185 190  
 Ile Asn Asn Leu Asn Lys Ser Ala Leu Lys Tyr Tyr Gln Leu Phe Leu  
 195 200 205  
 Asp Ser Leu Arg Asp Pro Asn Lys Val Phe Pro Glu His Ile Gly Glu  
 210 215 220  
 Asp Val Leu Arg Pro Ala Met Leu Ala Lys Phe Arg Val Ala Arg Leu  
 225 230 235 240  
 Tyr Gly Lys Ile Ile Thr Ala Asp Pro Lys Lys Glu Leu Glu Asn Leu  
 245 250 255  
 Ala Thr Ser Leu Glu His Tyr Lys Phe Ile Val Asp Tyr Cys Glu Lys



260 265 270  
His Pro Glu Ala Ala Gln Glu Ile Glu Val Glu Leu Glu Leu Ser Lys  
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Met Ala Leu Thr  
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<210> 5331

<211> 1069

<212> DNA

<213> Homo sapiens

<400> 5331

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960  
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1069

<210> 5332

<211> 61

<212> PRT

<213> Homo sapiens

<400> 5332

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Lys	Gln	Lys	Arg	Ala	Asn	His	Arg	Glu	Arg	Asn	Lys	Thr	Arg	Gly	Lys
		20					25					30			
Met	Ile	Thr	Asp	Ser	Gly	Lys	Phe	Ser	Gly	Ser	Ser	Pro	Ala	Pro	Pro
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Ser	Gln	Pro	Gln	Gly	Leu	Ser	Tyr	Ala	Xaa	Gly	Arg	Gly			
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<210> 5333

<211> 883

<212> DNA

<213> Homo sapiens

<400> 5333

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<210> 5334

<211> 269

<212> PRT

<213> Homo sapiens

&lt;400&gt; 5334

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 Asp Gln Gly Tyr Arg Val Asp Gly Arg Arg Xaa Arg Glu Leu Arg Lys  
 35 40 45  
 Ile Gln Ala Arg Met Gly Val Phe Ala Gln Ala Asp Gly Ser Ala Tyr  
 50 55 60  
 Ile Glu Gln Gly Asn Thr Lys Ala Leu Ala Val Val Tyr Gly Pro His  
 65 70 75 80  
 Glu Ile Arg Gly Ser Arg Ala Arg Ala Leu Pro Asp Arg Ala Leu Val  
 85 90 95  
 Asn Cys Gln Tyr Ser Ser Ala Thr Phe Ser Thr Gly Glu Arg Lys Arg  
 100 105 110  
 Arg Pro His Gly Asp Arg Lys Ser Cys Glu Met Gly Leu Gln Leu Arg  
 115 120 125  
 Gln Thr Phe Glu Ala Ala Ile Leu Thr Gln Leu His Pro Arg Ser Gln  
 130 135 140  
 Ile Asp Ile Tyr Val Gln Val Leu Gln Ala Asp Gly Gly Thr Tyr Ala  
 145 150 155 160  
 Ala Cys Val Asn Ala Ala Thr Leu Ala Val Leu Asp Ala Gly Ile Pro  
 165 170 175  
 Met Arg Asp Phe Val Cys Ala Cys Ser Ala Gly Phe Val Asp Gly Thr  
 180 185 190  
 Ala Leu Ala Asp Leu Ser His Val Glu Glu Ala Ala Gly Gly Pro Gln  
 195 200 205  
 Leu Ala Leu Ala Leu Leu Pro Ala Ser Gly Gln Ile Ala Leu Leu Glu  
 210 215 220  
 Met Asp Ala Arg Leu His Glu Asp His Leu Glu Arg Val Leu Glu Ala  
 225 230 235 240  
 Ala Ala Gln Ala Ala Arg Asp Val His Thr Leu Leu Asp Arg Val Val  
 245 250 255  
 Arg Gln His Val Arg Glu Ala Ser Ile Leu Leu Gly Asp  
 260 265

&lt;210&gt; 5335

&lt;211&gt; 4282

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5335

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 360

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<210> 5336

<211> 766

<212> PRT

<213> Homo sapiens

<400> 5336

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			20					25					30		
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&lt;210&gt; 5337

&lt;211&gt; 2742

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5337

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<211> 139

<212> PRT

<213> Homo sapiens

<400> 5338

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			35				40					45			
Tyr	Asn	Ser	Ser	Ala	Ala	Ala	Trp	Gln	Ala	Met	Gln	Asn	Gly	Gly	Lys
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<210> 5339

<211> 847

<212> DNA

<213> Homo sapiens

<400> 5339

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<210> 5340

<211> 217

<212> PRT

<213> Homo sapiens

<400> 5340

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			20					25					30		
Leu	Leu	Ser	Gly	Asp	Glu	Tyr	Asn	Gln	Asp	Phe	Asp	Ser	Thr	Asn	Phe
			35				40					45			
Glu	Glu	Ser	Gln	Asp	Glu	Asp	Asp	Ala	Leu	Asn	Glu	Ile	Val	Arg	Cys
			50			55					60				
Ile	Cys	Glu	Met	Asp	Glu	Glu	Asn	Gly	Phe	Met	Ile	Gln	Cys	Glu	Glu
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Cys	Leu	Cys	Trp	Gln	His	Ser	Val	Cys	Met	Gly	Leu	Leu	Glu	Glu	Ser
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Ile	Pro	Glu	Gln	Tyr	Ile	Cys	Tyr	Ile	Cys	Arg	Asp	Pro	Pro	Gly	Gln
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Arg	Trp	Ser	Ala	Lys	Tyr	Arg	Tyr	Asp	Lys	Glu	Trp	Leu	Asn	Asn	Gly
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Arg	Met	Cys	Gly	Leu	Ser	Phe	Phe	Lys	Glu	Asn	Tyr	Ser	His	Leu	Asn
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Ala	Lys	Lys	Ile	Val	Ser	Thr	His	His	Leu	Leu	Ala	Asp	Val	Tyr	Gly
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Val	Thr	Glu	Val	Leu	His	Gly	Leu	Gln	Leu	Lys	Ile	Gly	Ile	Leu	Lys
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Asn	Lys	His	His	Pro	Asp	Leu	His	Leu	Trp	Ala	Cys	Ser	Gly	Lys	Arg
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Lys	Asp	Gln	Asp	Gln	Ile	Ile	Ala	Gly	Val	Glu	Lys	Lys	Ile	Ala	Gln
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<212> DNA  
<213> Homo sapiens

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&lt;210&gt; 5342

&lt;211&gt; 690

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5342

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			20					25					30		
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4517



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Ile Val Val Asp Pro Leu	Phe Val Leu Asp Asn	Arg Ala Gln Ser Phe		
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Arg Pro Leu Thr Ala Glu	Met Tyr Gln Ala Val	Cys Glu Gly Thr Trp		
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&lt;211&gt; 752

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5343

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 <212> PRT  
 <213> Homo sapiens

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 Glu Arg Ser Phe Phe Leu Lys Lys Arg Arg Ala Asp Phe Val Ala Gly  
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 Ser Leu Ser Gly Arg Val Ile Val Ala Gly Gly Leu Gly Asn Gln Pro  
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 Thr Val Leu Glu Thr Ala Glu Ala Phe His Pro Gly Lys Asn Lys Trp  
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 Glu Ile Leu Pro Ala Met Pro Thr Pro Arg Cys Ala Cys Ser Ser Ile  
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 1912

&lt;210&gt; 5346

&lt;211&gt; 534

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5346

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Ser	Val	Lys	Ala	Leu	Leu	Leu	Lys	Gly	Lys	Ala	Pro	Val	Asp	Pro	Glu
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Cys	Thr	Ala	Lys	Val	Gly	Lys	Ala	His	Val	Tyr	Cys	Glu	Gly	Asn	Asp

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Val Tyr Asp Val Met Leu Asn Gln Thr Asn Leu Gln Phe Asn Asn Asn		
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Lys Tyr Tyr Leu Ile Gln Leu Leu Glu Asp Asp Ala Gln Arg Asn Phe		80
	85	90
Ser Val Trp Met Arg Trp Gly Arg Val Gly Lys Met Gly Gln His Ser		95
	100	105
Leu Val Ala Cys Ser Gly Asn Leu Asn Lys Ala Lys Glu Ile Phe Gln		110
	115	120
Lys Lys Phe Leu Asp Lys Thr Lys Asn Asn Trp Glu Asp Arg Glu Lys		125
	130	135
Phe Glu Lys Val Pro Gly Lys Tyr Asp Met Leu Gln Met Asp Tyr Ala		140
	145	150
Thr Asn Thr Gln Asp Glu Glu Glu Thr Lys Lys Glu Glu Ser Leu Lys		155
	160	165
Ser Pro Leu Lys Pro Glu Ser Gln Leu Asp Leu Arg Val Gln Glu Leu		170
	175	180
Ile Lys Leu Ile Cys Asn Val Gln Ala Met Glu Glu Met Met Met Glu		185
	190	195
Met Lys Tyr Asn Thr Lys Lys Ala Pro Leu Gly Lys Leu Thr Val Ala		200
	205	210
Gln Ile Lys Ala Gly Tyr Gln Ser Leu Lys Lys Ile Glu Asp Cys Ile		215
	220	225
Arg Ala Gly Gln His Gly Arg Ala Leu Met Glu Ala Cys Asn Glu Phe		230
	235	240
Tyr Thr Arg Ile Pro His Asp Phe Gly Leu Arg Thr Pro Pro Leu Ile		245
	250	255
Arg Thr Gln Lys Glu Leu Ser Glu Lys Ile Gln Leu Leu Glu Ala Leu		260
	265	270
Gly Asp Ile Glu Ile Ala Ile Lys Leu Val Lys Thr Glu Leu Gln Ser		275
	280	285
Pro Glu His Pro Leu Asp Gln His Tyr Arg Asn Leu His Cys Ala Leu		290
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Arg Pro Leu Asp His Glu Ser Tyr Glu Phe Lys Val Ile Ser Gln Tyr		305
	310	315
Leu Gln Ser Thr His Ala Pro Thr His Ser Asp Tyr Thr Met Thr Leu		320
	325	330
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Ala Pro Ile Thr Gly Tyr Met Phe Gly Lys Gly Ile Tyr Phe Ala Asp		380
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Met Ser Ser Lys Ser Ala Asn Tyr Cys Phe Ala Ser Arg Leu Lys Asn		395
	400	405
Thr Gly Leu Leu Leu Ser Glu Val Ala Leu Gly Gln Cys Asn Glu		410
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Leu Leu Glu Ala Asn Pro Lys Ala Glu Gly Leu Leu Gln Gly Lys His		425
	430	435
Ser Thr Lys Gly Leu Gly Lys Met Ala Pro Ser Ser Ala His Phe Val		440
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Thr Leu Asn Gly Ser Thr Val Pro Leu Gly Pro Ala Ser Asp Thr Gly		455
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	470	475
	480	

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Tyr	Asn	Pro	Asn	Gln	Val	Arg	Met	Arg	Tyr	Leu	Leu	Lys	Val	Gln	Phe				
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&lt;210&gt; 5347&lt;211&gt; 2893

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5347

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 <213> Homo sapiens

<400> 5348  
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 Arg Ser Gly Pro Leu Asp Ala Gly Glu Glu Glu Lys Ala Pro Ala Glu  
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 Phe Ser Gln Ala Ile Ser Gln Asp Val Asn Leu His Glu Ala Ile Leu  
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 Gln Ser Gln Glu Pro Phe Leu Gln Leu Asn Ser His Thr Thr Asn Pro



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Val	Asn	Pro	Asn	His	Tyr	Ala	Leu	Gln	Cys	Thr	His	Asp	Gly	Ser	Ile																																																
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<211> 425

<212> DNA

<213> Homo sapiens

<400> 5349

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 His Lys Val Ser Ser Gln Glu Gly Glu Gly Arg Ile Pro Leu Pro Gly  
 50 55 60  
 Lys Ala Glu Val Arg Glu Ala Gly Gln Pro Ile Pro Val Ser Leu Leu  
 65 70 75 80  
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 Gly His Glu Gly Leu Gly Arg Leu Leu Trp Gln Ser Gly Pro Leu Gln  
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 Gln Asp Ala Leu Ser Lys Ser Leu Gln Gln Asn Leu Pro Ser Arg Ser  
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 <211> 605  
 <212> PRT  
 <213> Homo sapiens

<400> 5354  
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 Asn Glu Pro Gly Glu Thr Thr Gln Ile Thr Tyr His Gln Leu Leu Val  
 35 40 45  
 Gln Val Cys Gln Phe Ser Asn Val Leu Arg Lys Gln Gly Ile Gln Lys  
 50 55 60  
 Gly Asp Arg Val Ala Ile Tyr Met Pro Met Ile Pro Glu Leu Val Val  
 65 70 75 80  
 Ala Met Leu Ala Cys Ala Arg Ile Gly Ala Leu His Ser Ile Val Phe  
 85 90 95  
 Ala Gly Phe Ser Ser Glu Ser Leu Cys Glu Arg Ile Leu Asp Ser Ser  
 100 105 110  
 Cys Ser Leu Leu Ile Thr Thr Asp Ala Phe Tyr Arg Gly Glu Lys Leu  
 115 120 125  
 Val Asn Leu Lys Glu Leu Ala Asp Glu Ala Leu Gln Lys Cys Gln Glu  
 130 135 140  
 Lys Gly Phe Pro Val Arg Cys Cys Ile Val Val Lys His Leu Gly Arg  
 145 150 155 160  
 Ala Glu Leu Gly Met Gly Thr Pro Pro Ala Ser Pro Pro Gln Leu Arg  
 165 170 175  
 Gly His Ala Asp Val Gln Ile Ser Trp Asn Gln Gly Ile Asp Leu Trp  
 180 185 190  
 Trp His Glu Leu Met Gln Glu Ala Gly Asp Glu Cys Glu Pro Glu Trp  
 195 200 205  
 Cys Asp Ala Glu Asp Pro Leu Phe Ile Leu Tyr Thr Ser Gly Ser Thr  
 210 215 220  
 Gly Lys Pro Lys Gly Val Val His Thr Val Gly Gly Tyr Met Leu Tyr  
 225 230 235 240  
 Val Ala Thr Thr Phe Lys Tyr Val Phe Asp Phe His Ala Glu Asp Val  
 245 250 255  
 Phe Trp Cys Thr Ala Asp Ile Gly Trp Ile Thr Gly His Ser Tyr Val  
 260 265 270  
 Thr Tyr Gly Pro Leu Ala Asn Gly Ala Thr Ser Val Leu Phe Glu Gly

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290	295	300
Tyr Lys Val Thr Lys Phe Tyr Thr Ala Pro Thr Ala Ile Arg Leu Leu		
305	310	315
Met Lys Phe Gly Asp Glu Pro Val Thr Lys His Ser Arg Ala Ser Leu		
325	330	335
Gln Val Leu Gly Thr Val Gly Glu Pro Ile Asn Pro Glu Ala Trp Leu		
340	345	350
Trp Tyr His Arg Val Val Gly Ala Gln Arg Cys Pro Ile Val Asp Thr		
355	360	365
Phe Trp Gln Thr Glu Thr Gly Gly His Met Leu Thr Pro Leu Pro Val		
370	375	380
Pro Thr Pro Met Lys Pro Gly Ser Ala Thr Phe Pro Phe Phe Gly Val		
385	390	395
Ala Pro Ala Ile Leu Asn Glu Ser Gly Glu Glu Leu Glu Gly Glu Ala		
405	410	415
Glu Gly Tyr Leu Val Phe Lys Gln Pro Trp Pro Gly Ile Met Arg Thr		
420	425	430
Val Tyr Gly Asn His Glu Arg Phe Glu Thr Thr Tyr Ser Lys Lys Phe		
435	440	445
Pro Gly Tyr Tyr Val Thr Gly Asp Gly Cys Gln Arg Asp Gln Asp Gly		
450	455	460
Tyr Tyr Trp Ile Thr Gly Arg Ile Asp Asp Met Leu Asn Val Ser Gly		
465	470	475
His Leu Leu Ser Thr Ala Glu Val Glu Ser Ala Leu Val Glu His Glu		
485	490	495
Ala Val Ala Glu Ala Ala Val Val Gly His Pro His Pro Val Lys Gly		
500	505	510
Glu Cys Leu Tyr Cys Phe Val Thr Leu Cys Asp Gly His Thr Phe Ser		
515	520	525
Pro Lys Leu Thr Glu Glu Leu Lys Lys Gln Ile Arg Glu Lys Ile Gly		
530	535	540
Pro Ile Ala Thr Pro Asp Tyr Ile Gln Asn Ala Pro Gly Leu Pro Lys		
545	550	555
Thr Arg Ser Gly Lys Ile Met Arg Arg Val Leu Arg Lys Ile Ala Gln		
565	570	575
Asn Asp His Asp Leu Gly Asp Met Ser Thr Val Ala Asp Pro Ser Val		
580	585	590
Ile Ser His Leu Phe Ser His Arg Cys Leu Thr Ile Gln		
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&lt;210&gt; 5355

&lt;211&gt; 1596

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5355

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180



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1596

&lt;210&gt; 5356

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5356

Arg Lys Cys Ile Glu Asp Val Ile His Phe Ala Trp Glu Glu Lys Leu  
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 Cys Arg Phe His Ser Phe Lys Lys Val Leu Tyr Glu Met Gly Pro Glu  
 35 40 45  
 Tyr Ser Ser Asn Val Glu Leu Ala Ser Phe His Ser Thr Ser Lys Gly  
 50 55 60  
 Tyr Met Gly Glu Cys Gly Tyr Arg Gly Gly Tyr Met Glu Val Val Asn  
 65 70 75 80  
 Leu His Pro Glu Ile Lys Gly Gln Leu Val Lys Leu Leu Ser Val Arg  
 85 90 95  
 Leu Cys Pro Pro Val Ser Gly Gln Ala Ala Met Asp Ile Val Val Asn  
 100 105 110  
 Pro Pro Val Ala Gly Glu Glu Ser Phe Glu Gln Phe Ser Arg Glu Lys  
 115 120 125  
 Glu Ser Val Leu Gly Asn Leu Ala Lys Lys Ala Lys Leu Thr Glu Asp  
 130 135 140  
 Leu Phe Asn Gln Val Pro Gly Ile His Cys Asn Pro Leu Gln Gly Ala  
 145 150 155 160  
 Met Tyr Ala Phe Pro Arg Ile Phe Ile Pro Ala Lys Ala Val Glu Ala  
 165 170 175  
 Ala Gln Ala His Gln Met Ala Pro Asp Met Phe Tyr Cys Met Lys Leu  
 180 185 190  
 Leu Glu Glu Thr Gly Ile Cys Val Val Pro Gly Ser Gly Phe Gly Gln  
 195 200 205  
 Arg Glu Gly Thr Tyr His Phe Arg Met Thr Ile Leu Pro Pro Val Glu  
 210 215 220  
 Lys Leu Lys Thr Val Leu Gln Lys Val Lys Asp Phe His Ile Asn Phe  
 225 230 235 240  
 Leu Glu Lys Tyr Ala  
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&lt;210&gt; 5357

&lt;211&gt; 1722

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5357

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 1722

&lt;210&gt; 5358

&lt;211&gt; 321

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5358

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 Met Gly Ile Gln Thr Ser Pro Val Leu Leu Ala Ser Leu Gly Val Gly

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Leu	Val	Thr	Leu	Leu	Gly	Leu	Ala	Val	Gly	Ser	Tyr	Leu	Val	Arg	Arg		
			35				40						45				
Ser	Arg	Arg	Pro	Gln	Val	Thr	Leu	Leu	Asp	Pro	Asn	Glu	Lys	Tyr	Leu		
			50				55					60					
Leu	Arg	Leu	Leu	Asp	Lys	Thr	Thr	Val	Ser	His	Asn	Thr	Lys	Arg	Phe		
65					70					75					80		
Arg	Phe	Ala	Leu	Pro	Thr	Ala	His	His	Thr	Leu	Gly	Leu	Pro	Val	Gly		
				85					90					95			
Lys	His	Ile	Tyr	Leu	Ser	Thr	Arg	Ile	Asp	Gly	Ser	Leu	Val	Ile	Arg		
			100					105					110				
Pro	Tyr	Thr	Pro	Val	Thr	Ser	Asp	Glu	Asp	Gln	Gly	Tyr	Val	Asp	Leu		
			115				120					125					
Val	Ile	Lys	Val	Tyr	Leu	Lys	Gly	Val	His	Pro	Lys	Phe	Pro	Glu	Gly		
			130				135					140					
Gly	Lys	Met	Ser	Gln	Tyr	Leu	Asp	Ser	Leu	Lys	Val	Gly	Asp	Val	Val		
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Glu	Phe	Arg	Gly	Pro	Ser	Gly	Leu	Leu	Thr	Tyr	Thr	Gly	Lys	Gly	His		
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Phe	Asn	Ile	Gln	Pro	Asn	Lys	Lys	Ser	Pro	Pro	Glu	Pro	Arg	Val	Ala		
			180					185					190				
Lys	Lys	Leu	Gly	Met	Ile	Ala	Gly	Gly	Thr	Gly	Ile	Thr	Pro	Met	Leu		
			195				200						205				
Gln	Leu	Ile	Arg	Ala	Ile	Leu	Lys	Val	Pro	Glu	Asp	Pro	Thr	Gln	Cys		
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Phe	Thr	Leu	Asp	His	Pro	Pro	Lys	Asp	Trp	Ala	Tyr	Ser	Lys	Gly	Phe		
			260					265					270				
Val	Thr	Ala	Asp	Met	Ile	Arg	Glu	His	Leu	Pro	Ala	Pro	Gly	Asp	Asp		
			275				280						285				
Val	Leu	Val	Leu	Leu	Cys	Gly	Pro	Pro	Pro	Met	Val	Gln	Leu	Ala	Cys		
			290				295				300						
His	Pro	Asn	Leu	Asp	Lys	Leu	Gly	Tyr	Ser	Gln	Lys	Met	Arg	Phe	Thr		
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Tyr																	

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&lt;211&gt; 5003

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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			20					25					30		
Trp	Ala	Ser	Pro	Ser	Gly	Phe	Phe	Cys	Cys	Cys	Cys	Cys	Phe	Leu	Arg
		35				40						45			
Trp	Ser	Leu	Ala	Leu	Xaa	Ala	Gln	Thr	Glu	Val	Gln	Arg	Pro	Asp	Leu
	50					55					60				
Asn	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gly	Phe	Lys	Gly	Phe	Ser	Cys	Leu
65					70					75					80
Ser	Leu	Leu	Ser	Ser	Trp	Asp	Tyr	Arg	His	Pro	Pro	Ala	Arg	Pro	Ala
				85				90					95		
Phe	Phe	Cys	Ile	Phe	Ser	Arg	Asp	Gly	Val	Leu	Ser	Cys	Trp	Pro	Gly
			100					105					110		
Trp	Ser	Arg	Thr	Pro	Asp	Leu	Met	Xaa	Ser	Thr	Arg	Leu	Gly	Leu	Pro
		115				120						125			
Asn	Cys	Trp	Asp	His	Arg	Arg	Glu	Pro	Pro	Arg	Pro	Ala	Val	Cys	Leu
	130					135					140				
Val	Phe	Lys	Pro	Ile	Asn	Glu	Pro	Val	Ser	Leu	Phe	Gly	Ile	Tyr	Asn
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Asn	Glu	Lys	Ile	His											
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<210> 5363

<211> 894

<212> DNA

<213> Homo sapiens

<400> 5363

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120  
cggcgttgca ccggctctgt gagcacctcc cctctgagca cttcccttgt gacaggccac  
180  
ttcccttgtg acaggcccag gacgaggtgg ccaggcggcc cccatggcgt ccttgggtcta  
240  
ggcggagaac cgcctgggcg atgagtgaga acctcgacaa cgagggcccg aagcccatgg  
300

agagctgtgg ccaggagagc agcagtgtccc tgagctgtccc taccgtctcg gtgccccctg  
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 420  
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 720  
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 780  
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<210> 5364

<211> 187

<212> PRT

<213> Homo sapiens

<400> 5364

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Arg	Trp	Arg	Lys	Arg	Ala	Leu	Gly	Arg	Leu	Gln	Gly	Xaa	Gly	Pro	Gln
			20					25					30		
Pro	Gly	Leu	Tyr	Ser	Tyr	Ile	Arg	Asp	Asp	Leu	Phe	Thr	Ser	Glu	Ile
		35					40					45			
Phe	Lys	Leu	Glu	Leu	Gln	Asn	Ala	Pro	Arg	His	Ala	Ser	Phe	Ser	Asp
	50					55					60				
Val	Arg	Arg	Phe	Leu	Gly	Arg	Phe	Gly	Leu	Gln	Pro	His	Lys	Thr	Lys
65					70					75					80
Leu	Phe	Gly	Gln	Pro	Pro	Cys	Ala	Phe	Val	Thr	Phe	Arg	Ser	Ala	Ala
				85					90					95	
Glu	Arg	Asp	Lys	Ala	Leu	Arg	Val	Leu	His	Gly	Ala	Leu	Trp	Lys	Gly
			100						105				110		
Arg	Pro	Leu	Ser	Val	Ala	Trp	Pro	Gly	Pro	Arg	Pro	Thr	Pro	Trp	Pro
		115						120					125		
Gly	Gly	Gly	Xaa	Gln	Glu	Gly	Glu	Ser	Glu	Pro	Pro	Val	Thr	Arg	Xaa
	130					135						140			
Gly	Arg	Arg	Gly	Asp	Pro	Ser	Met	Asp	Ser	Ala	Leu	Xaa	Leu	Ser	Ser
145					150					155					160
Leu	Ser	Gly	Ser	Ser	Trp	Ser	Ala	Ser	Arg	Cys	Cys	Arg	Asn	Xaa	Ala
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Gln	Glu	Ile	Gly	Ser	Thr	Asn	Arg	Ala	Leu	Arg					
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<210> 5365

<211> 1824

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5365

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ccccgcgagt cctcaagcg ggaacctgcc tcgtgtctcc caggagccat ggaggctgtg  
120  
gaactcgcca gaaaactgca ggaggaagct acgtgctcca tctgtctgga ttacttcaca  
180  
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240  
gaaaaggcga ggggcaagaa ggggaggcgg aagcggaagg gctccttccc ctgccccgag  
300  
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360  
gagatggcgc agcagcatcc tggctctgag aagcaagacc tgtgccagga gcaccacgag  
420  
ccctcaagc ttttctgcca gaaggaccag agcccatct gtgtggtgtg caggaggtcc  
480  
cgggagcacc ggctgcacag ggtgctgccc gccgaggagg cagtgcaggg gtacaagttg  
540  
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600  
gccagggagg agcagagctt agccgagtgg cagggcaagg tgaaggagcg gagagaacgc  
660  
attgtgctgg agtttgagaa gatgaacctc tacctggtgg aagaagagca gaggtcctc  
720  
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780  
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900  
agtgtgcagt gcccagaggt tgcccccca accagaccca ggactgtgtg cagagttccc  
960  
ggacagattg aagtgctaag aggctttcta gaggatgtgg tgctgatgc cacctccgcg  
1020  
taccctacc tctcctgta tgagagccgc cagaggcgct acctcggctc ttcgccggag  
1080  
ggcagtgggt tctgcagcaa ggaccgattt gtggcttacc cctgtgctgt gggccagacg  
1140  
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1200  
tgggccctgg gtgtgtgcag ggacaacgtg agccggaag acagggctcct caagtgcccc  
1260  
gaaaacggct tctgggtggt gcagctgtcc aaggggacca agtacttatc caccttctct  
1320  
gccctaacc cggtcatgct gatggagcct cccagccaca tgggcatctt cctggacttc  
1380  
gaagccgggg aagtgtcctt ctacagtgtg agcgatgggt cccacctgca cacctactcc  
1440  
caggccacct tcccaggccc cctgcagcct ttcttctgcc tgggggctcc gaagtctggt  
1500



cagatgggtca tctccacagt gaccatgtgg gtgaaaggat agacacagac cggggggactc  
 1560  
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 1680  
 aatataattg tgattagaac tgtcaaacat taagagggtta tactgacaga tgcttcctag  
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<210> 5366

<211> 477

<212> PRT

<213> Homo sapiens

<400> 5366

Met	Glu	Ala	Val	Glu	Leu	Ala	Arg	Lys	Leu	Gln	Glu	Glu	Ala	Thr	Cys
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Ser	Ile	Cys	Leu	Asp	Tyr	Phe	Thr	Asp	Pro	Val	Met	Thr	Thr	Cys	Gly
			20					25					30		
His	Asn	Phe	Cys	Arg	Ala	Cys	Ile	Gln	Leu	Ser	Trp	Glu	Lys	Ala	Arg
		35					40					45			
Gly	Lys	Lys	Gly	Arg	Arg	Lys	Arg	Lys	Gly	Ser	Phe	Pro	Cys	Pro	Glu
	50					55					60				
Cys	Arg	Glu	Met	Ser	Pro	Gln	Arg	Asn	Leu	Leu	Pro	Asn	Arg	Leu	Leu
65					70				75					80	
Thr	Lys	Val	Ala	Glu	Met	Ala	Gln	Gln	His	Pro	Gly	Leu	Gln	Lys	Gln
			85						90				95		
Asp	Leu	Cys	Gln	Glu	His	His	Glu	Pro	Leu	Lys	Leu	Phe	Cys	Gln	Lys
			100					105					110		
Asp	Gln	Ser	Pro	Ile	Cys	Val	Val	Cys	Arg	Glu	Ser	Arg	Glu	His	Arg
	115						120					125			
Leu	His	Arg	Val	Leu	Pro	Ala	Glu	Glu	Ala	Val	Gln	Gly	Tyr	Lys	Leu
	130					135					140				
Lys	Leu	Glu	Glu	Asp	Met	Glu	Tyr	Leu	Arg	Glu	Gln	Ile	Thr	Arg	Thr
145					150					155					160
Gly	Asn	Leu	Gln	Ala	Arg	Glu	Glu	Gln	Ser	Leu	Ala	Glu	Trp	Gln	Gly
			165					170					175		
Lys	Val	Lys	Glu	Arg	Arg	Glu	Arg	Ile	Val	Leu	Glu	Phe	Glu	Lys	Met
			180					185					190		
Asn	Leu	Tyr	Leu	Val	Glu	Glu	Glu	Gln	Arg	Leu	Leu	Gln	Ala	Leu	Glu
	195						200					205			
Thr	Glu	Glu	Glu	Glu	Thr	Ala	Ser	Arg	Leu	Arg	Glu	Ser	Val	Ala	Cys
	210					215					220				
Leu	Asp	Arg	Gln	Gly	His	Ser	Leu	Glu	Leu	Leu	Leu	Leu	Gln	Leu	Glu
225					230				235						240
Glu	Arg	Ser	Thr	Gln	Gly	Pro	Leu	Gln	Met	Leu	Gln	Asp	Met	Lys	Glu
			245					250					255		
Pro	Leu	Ser	Arg	Lys	Asn	Asn	Val	Ser	Val	Gln	Cys	Pro	Glu	Val	Ala
			260					265					270		
Pro	Pro	Thr	Arg	Pro	Arg	Thr	Val	Cys	Arg	Val	Pro	Gly	Gln	Ile	Glu

		275					280					285				
Val	Leu	Arg	Gly	Phe	Leu	Glu	Asp	Val	Val	Pro	Asp	Ala	Thr	Ser	Ala	
	290					295					300					
Tyr	Pro	Tyr	Leu	Leu	Leu	Tyr	Glu	Ser	Arg	Gln	Arg	Arg	Tyr	Leu	Gly	
305					310					315					320	
Ser	Ser	Pro	Glu	Gly	Ser	Gly	Phe	Cys	Ser	Lys	Asp	Arg	Phe	Val	Ala	
				325					330					335		
Tyr	Pro	Cys	Ala	Val	Gly	Gln	Thr	Ala	Phe	Ser	Ser	Gly	Arg	His	Tyr	
			340					345					350			
Trp	Glu	Val	Gly	Met	Asn	Ile	Thr	Gly	Asp	Ala	Leu	Trp	Ala	Leu	Gly	
	355					360					365					
Val	Cys	Arg	Asp	Asn	Val	Ser	Arg	Lys	Asp	Arg	Val	Leu	Lys	Cys	Pro	
	370					375					380					
Glu	Asn	Gly	Phe	Trp	Val	Val	Gln	Leu	Ser	Lys	Gly	Thr	Lys	Tyr	Leu	
385					390					395					400	
Ser	Thr	Phe	Ser	Ala	Leu	Thr	Pro	Val	Met	Leu	Met	Glu	Pro	Pro	Ser	
				405					410					415		
His	Met	Gly	Ile	Phe	Leu	Asp	Phe	Glu	Ala	Gly	Glu	Val	Ser	Phe	Tyr	
			420					425					430			
Ser	Val	Ser	Asp	Gly	Ser	His	Leu	His	Thr	Tyr	Ser	Gln	Ala	Thr	Phe	
	435					440						445				
Pro	Gly	Pro	Leu	Gln	Pro	Phe	Phe	Cys	Leu	Gly	Ala	Pro	Lys	Ser	Gly	
	450					455					460					
Gln	Met	Val	Ile	Ser	Thr	Val	Thr	Met	Trp	Val	Lys	Gly				
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<210> 5367
<211> 549
<212> DNA
<213> Homo sapiens
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120
gagtctcagg  ggctggggat  gctgcccccg  aagcccccta  cttttgggga  gttcctgtcc
180
cagcaciaag  ctgaggccag  cagccgcaga  aggagaaaga  gcagtcggcc  ccaggccaag
240
gcagcgccca  gggcctacag  tgaccatgat  gaccgctggg  agacaaaaga  aggggcagca
300
tccccagccc  ctgagactcc  acagcctact  tcccccgaga  cttcccccaa  ggagacaccc
360
atgcagccac  ccgagatccc  agctcctgcc  caccggcctc  ctgaagacga  gggggaagag
420
aatgaggggg  aagaggatga  agaatgggag  gacataagtg  aggatgagga  agaggaggag
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540
gccccacc
549

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<210> 5368

<211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 5368  
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   1                  5                  10                  15  
 Lys Ala Glu Ala Ser Ser Arg Arg Arg Arg Lys Ser Ser Arg Pro Gln  
                   20                  25                  30  
 Ala Lys Ala Ala Pro Arg Ala Tyr Ser Asp His Asp Asp Arg Trp Glu  
           35                  40                  45  
 Thr Lys Glu Gly Ala Ala Ser Pro Ala Pro Glu Thr Pro Gln Pro Thr  
       50                  55                  60  
 Ser Pro Glu Thr Ser Pro Lys Glu Thr Pro Met Gln Pro Pro Glu Ile  
 65                  70                  75                  80  
 Pro Ala Pro Ala His Arg Pro Pro Glu Asp Glu Gly Glu Glu Asn Glu  
                   85                  90                  95  
 Gly Glu Glu Asp Glu Glu Trp Glu Asp Ile Ser Glu Asp Glu Glu Glu  
           100                  105                  110  
 Glu Glu Ile Glu Val Glu Glu Gly Asp Glu Glu Glu Pro Ala Gln Asp  
           115                  120                  125  
 His Gln Ala Pro Glu Ala Ala Pro Thr  
       130                  135

<210> 5369  
 <211> 646  
 <212> DNA  
 <213> Homo sapiens

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 180  
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 240  
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 360  
 cctccccccc tctccccctc cctccgctc ccaccccacc ttccggcctc ttctctcccc  
 420  
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 480  
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<210> 5370

<211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 5370  
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 Ile Tyr Glu Leu Thr Val Leu Lys Asp Pro Tyr Thr Gly Met His Lys  
 35 40 45  
 Gly Gly Arg Pro Ala Pro Ser Pro Leu Ser Pro Ser Leu Arg Leu Pro  
 50 55 60  
 Pro His Leu Pro Ala Ser Ser Leu Pro His His His Pro Ser Ser Ala  
 65 70 75 80  
 His Leu Pro Pro Leu Pro Ala Ser Ala Gly Ala Ser Val Leu Thr Pro  
 85 90 95  
 Ser Leu Pro Pro Thr Pro Pro Pro Leu Ser Gly Gly Ala Ala Asp Arg  
 100 105 110  
 Ser Glu Arg Ala Pro Ser Pro Pro Pro Pro Pro Leu Pro Pro Ser Pro  
 115 120 125  
 Pro Ser Gly Ile Ser Ser Leu Ser Pro Ser Leu Ser Pro Ser Leu Ser  
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 Pro Phe Leu Phe  
 145

<210> 5371  
 <211> 1177  
 <212> DNA  
 <213> Homo sapiens

<400> 5371  
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 180  
 tggaagcact tcaactgcctc cctggcccc cgcatgtcca accaggcat cgcggtgctc  
 240  
 aacaacttcg tatacttgat tggaggggac aacaatgtcc aaggatttcg agcagagtcc  
 300  
 cgatgctgga ggtatgaccc acggcacaac cgctggnttc cagatccagt ccctgcagca  
 360  
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 480  
 gcatacgtgg cccactcaa gagggaggtg tatgccacg caggcgcgac gctggagggg  
 540  
 aagatgtata tcacctgctg ccgcagaggg gaggattacc tgaaagagac aactgctac  
 600  
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 660

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 720  
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 1080  
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<210> 5372

<211> 368

<212> PRT

<213> Homo sapiens

<400> 5372

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Pro	Ser	Leu	Gln	Ser	Pro	Gln	Thr	Glu	Leu	Arg	Ser	Asp	Phe	Gln	Cys
			20					25					30		
Val	Val	Gly	Phe	Gly	Gly	Ile	His	Ser	Thr	Pro	Ser	Thr	Val	Leu	Ser
		35				40						45			
Asp	Gln	Ala	Lys	Tyr	Leu	Asn	Pro	Leu	Leu	Gly	Glu	Trp	Lys	His	Phe
	50					55					60				
Thr	Ala	Ser	Leu	Ala	Pro	Arg	Met	Ser	Asn	Gln	Gly	Ile	Ala	Val	Leu
65					70					75					80
Asn	Asn	Phe	Val	Tyr	Leu	Ile	Gly	Gly	Asp	Asn	Asn	Val	Gln	Gly	Phe
			85						90					95	
Arg	Ala	Glu	Ser	Arg	Cys	Trp	Arg	Tyr	Asp	Pro	Arg	His	Asn	Arg	Trp
			100						105				110		
Xaa	Pro	Asp	Pro	Val	Pro	Ala	Ala	Gly	Ala	Arg	Arg	Pro	Val	Xaa	Val
		115					120					125			
Cys	Val	Val	Gly	Arg	Tyr	Ile	Tyr	Ala	Val	Ala	Gly	Arg	Asp	Tyr	His
		130				135					140				
Asn	Asp	Leu	Asn	Ala	Val	Glu	Arg	Tyr	Asp	Pro	Ala	Thr	Asn	Ser	Trp
145					150					155					160
Ala	Tyr	Val	Ala	Pro	Leu	Lys	Arg	Glu	Val	Tyr	Ala	His	Ala	Gly	Ala
				165					170					175	
Thr	Leu	Glu	Gly	Lys	Met	Tyr	Ile	Thr	Cys	Gly	Arg	Arg	Gly	Glu	Asp
			180						185				190		
Tyr	Leu	Lys	Glu	Thr	His	Cys	Tyr	Asp	Pro	Gly	Ser	Asn	Thr	Trp	His
		195					200					205			
Thr	Leu	Ala	Asp	Gly	Pro	Val	Arg	Arg	Ala	Trp	His	Gly	Met	Ala	Thr
		210				215						220			
Leu	Leu	Asn	Lys	Leu	Tyr	Val	Ile	Gly	Gly	Ser	Asn	Asn	Asp	Ala	Gly

225		230		235		240									
Tyr	Arg	Arg	Asp	Val	His	Gln	Val	Ala	Cys	Tyr	Ser	Cys	Thr	Ser	Gly
			245						250					255	
Gln	Trp	Ser	Ser	Val	Cys	Pro	Leu	Pro	Ala	Gly	His	Gly	Glu	Pro	Gly
			260						265					270	
Ile	Ala	Val	Leu	Asp	Asn	Arg	Ile	Tyr	Val	Leu	Gly	Gly	Arg	Ser	His
		275					280						285		
Asn	Arg	Gly	Ser	Arg	Thr	Gly	Tyr	Val	His	Ile	Tyr	Asp	Val	Glu	Lys
		290				295						300			
Asp	Cys	Trp	Glu	Glu	Gly	Pro	Gln	Leu	Asp	Asn	Ser	Ile	Ser	Gly	Leu
305					310					315				320	
Ala	Ala	Cys	Val	Leu	Thr	Leu	Pro	Arg	Ser	Leu	Leu	Leu	Glu	Pro	Pro
			325						330					335	
Arg	Gly	Thr	Pro	Asp	Arg	Ser	Gln	Ala	Asp	Pro	Asp	Phe	Ala	Ser	Glu
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&lt;210&gt; 5373

&lt;211&gt; 4221

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5373

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<211> 886

<212> PRT

<213> Homo sapiens

<400> 5374

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Gln	Asp	Lys	Asp	Val	Asn	Glu	Gly	Glu	Thr	Ser	Asp	Gly	Val	Arg	Lys
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Ser	Val	His	Lys	Val	Phe	Ala	Ser	Met	Leu	Gly	Glu	Asn	Glu	Asp	Asp
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Pro	Glu	Gln	Pro	Thr	Ala	Gly	Asp	Val	Phe	Val	Leu	Glu	Met	Val	Leu
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Trp	Trp	Asn	Leu	Leu	Leu	Lys	Ala	Ile	Tyr	Ser	Leu	Cys	Asp	Leu	Ser	
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Leu Gly Arg Gly Leu His Gln Leu Gly Leu Ile His Leu Ala Ile His
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Tyr Tyr Gln Lys Ala Leu Glu Leu Pro Pro Leu Val Val Glu Gly Ile
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 <213> Homo sapiens

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35      40      45
Val Gln Leu Lys Ser Ile Ser Leu Phe Ala Phe Ser Glu Ala Ser Pro

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Cys His Arg Pro Arg Thr Ile Ser Ile Phe Asn Pro Arg Asn His Thr				
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&lt;210&gt; 5377

&lt;211&gt; 1452

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5377

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<212> PRT

<213> Homo sapiens

<400> 5378

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Cys	Leu	Asn	Arg	Asp	Pro	Ala	Arg	Val	Val	Val	Val	Asp	Cys	Lys	Lys
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His Tyr Ala Leu Glu Asp Asp Pro Leu Ala Ala Phe Lys Gln Arg Gln				
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Ser Arg Leu Glu Gln Glu Glu Gln Gln Arg Leu Ala Glu Leu Ser Lys				
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Ser Asn Lys Gln Asn Leu Phe Leu Gly Ser Leu Thr Ser Arg Leu Trp				
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&lt;210&gt; 5379

&lt;211&gt; 3213

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5379

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<212> PRT

<213> Homo sapiens

<400> 5380

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&lt;210&gt; 5381

&lt;211&gt; 1576

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5381

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&lt;210&gt; 5382

&lt;211&gt; 223

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5382

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&lt;210&gt; 5383

&lt;211&gt; 2027

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5383

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&lt;210&gt; 5384

&lt;211&gt; 508

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5384

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Thr Asn Val Trp Ile Asn Val His Asp Ile Phe Tyr Pro Phe Pro Gln		80
	85	90
Ser Glu Gly Glu Asp Glu Leu Cys Phe Leu Arg Ala Asn Glu Cys Lys		95
	100	105
Thr Gly Phe Cys His Leu Tyr Lys Val Thr Ala Val Leu Lys Ser Gln		110
	115	120
Gly Tyr Asp Trp Ser Glu Pro Phe Ser Pro Gly Glu Gly Glu Gln Ser		125
	130	135
Leu Thr Asn Ala Ile Trp Val Asn Glu Glu Thr Lys Leu Val Tyr Phe		140
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Gln Gly Thr Lys Asp Thr Pro Leu Glu His His Leu Tyr Val Val Ser		160
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Tyr Glu Ala Ala Gly Glu Ile Val Arg Leu Thr Thr Pro Gly Phe Ser		175
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His Ser Cys Ser Met Ser Gln Asn Phe Asp Met Phe Val Ser His Tyr		190
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	245	250
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Asn Asn Ser Phe Lys Gly Ile Lys Tyr Leu Arg Leu Asn Thr Leu Ala		285
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Ser Leu Gly Tyr Ala Val Val Val Ile Asp Gly Arg Gly Ser Cys Gln		300
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Arg Gly Leu Arg Phe Glu Gly Ala Leu Lys Asn Gln Met Gly Gln Val		320
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Gly Phe Ile Asp Leu Ser Arg Val Ala Ile His Gly Trp Ser Tyr Gly		350
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Gly Phe Leu Ser Leu Met Gly Leu Ile His Lys Pro Gln Val Phe Lys		365
	370	375
Val Ala Ile Ala Gly Ala Pro Val Thr Val Trp Met Ala Tyr Asp Thr		380
385	390	395
Gly Tyr Thr Glu Arg Tyr Met Asp Val Pro Glu Asn Asn Gln His Gly		400
	405	410
Tyr Glu Ala Gly Ser Val Ala Leu His Val Glu Lys Leu Pro Asn Glu		415
	420	425
Pro Asn Arg Leu Leu Ile Leu His Gly Phe Leu Asp Glu Asn Val His		430
	435	440
Phe Phe His Thr Asn Phe Leu Val Ser Gln Leu Ile Arg Ala Gly Lys		445
	450	455
Pro Tyr Gln Leu Gln Val Ala Leu Pro Pro Val Ser Pro Gln Ile Tyr		460
465	470	475
Pro Asn Glu Arg His Ser Ile Arg Cys Pro Glu Ser Gly Glu His Tyr		480



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<210> 5388

<211> 125

<212> PRT

<213> Homo sapiens

<400> 5388

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			20					25					30		
Phe	Thr	Trp	Cys	Phe	Cys	Phe	Ser	Met	Thr	Leu	Ile	Ile	Leu	Ile	Val
		35					40					45			
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	50					55					60				
Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Leu	Phe	Cys	Leu	Ser	Ala	Ser
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Ile	Ile	Tyr	Pro	Thr	Thr	Tyr	Val	Gln	Phe	Leu	Ser	His	Gly	Arg	Ser
				85				90						95	
Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe	Ser	Cys	Ile	Ala	Cys	Val
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<210> 5389

<211> 1711

<212> DNA

<213> Homo sapiens

<400> 5389

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&lt;210&gt; 5390

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5390

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Ile	Met	Gly	Arg	Glu	Lys	Leu	Lys	Ala	Ala	Asp	Cys	Asp	Leu	Gln	Ile
	35		40		45										
Thr	Asn	Ala	Gln	Thr	Lys	Glu	Glu	Tyr	Thr	Asp	Asp	Asn	Ala	Leu	Ile
	50		55		60										
Pro	Lys	Asn	Ser	Ser	Val	Ile	Val	Arg	Arg	Ile	Pro	Ile	Gly	Gly	Val
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Lys	Ser	Thr	Ser	Lys	Thr	Tyr	Val	Ile	Ser	Arg	Thr	Glu	Pro	Ala	Met
	85		90		95										
Ala	Thr	Thr	Lys	Ala	Val	Cys	Lys	Asn	Thr	Ile	Ser	His	Phe	Phe	Tyr
	100		105		110										
Thr	Leu	Leu	Leu	Pro	Leu										
	115														

&lt;210&gt; 5391

&lt;211&gt; 797

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5391

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&lt;210&gt; 5392

&lt;211&gt; 55

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5392

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&lt;210&gt; 5393

&lt;211&gt; 4837

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5393

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&lt;210&gt; 5394

&lt;211&gt; 354

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5394

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			20					25					30		
Phe	Tyr	Arg	Leu	Leu	Arg	His	Pro	Ser	Asp	Arg	Met	Gly	Phe	Pro	Pro
			35				40					45			
Gly	Ala	Ala	Gln	Ala	Leu	Val	Leu	Gln	Val	Phe	Lys	Thr	Phe	Asp	His
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Met	Ala	Arg	Gln	Asp	Asp	Glu	Lys	Arg	Arg	Gln	Glu	Leu	Glu	Glu	Lys
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			85					90						95	
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Ser	Val	Ala	Leu	Ser	Ser	Ser	Ser	Ile	Arg	Val	Ala	Met	Leu	Glu	Glu
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&lt;210&gt; 5395

&lt;211&gt; 3711

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5395

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&lt;210&gt; 5396

&lt;211&gt; 760

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5396

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&lt;210&gt; 5397

&lt;211&gt; 561

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5397

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&lt;210&gt; 5402

&lt;211&gt; 507

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5402

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			20					25					30		
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<210> 5403

<211> 451

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5403

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&lt;210&gt; 5404

&lt;211&gt; 150

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5404

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65				70				75						80	
Ala	Ser	Leu	Arg	Ala	Ala	Ser	Pro	Ala	Ala	Ser	Ser	Ser	Pro	Trp	Ala
			85					90						95	
Arg	Val	Pro	Cys	Ser	Arg	Ala	Arg	Arg	Pro	Lys	Ser	Ala	Glu	Leu	Leu
		100						105					110		
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&lt;210&gt; 5405

&lt;211&gt; 1609

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5405

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 <211> 291  
 <212> PRT  
 <213> Homo sapiens

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 Lys Tyr Cys Ser Ala Lys Ala Arg His Ser Trp Thr Lys Asp Arg Arg  
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 100 105 110  
 Ala His Ser Pro Glu Glu Arg Glu Val Trp Thr Tyr Met Lys Glu Asn  
 115 120 125  
 Gly Ile Gln Asp Met Glu Gln Phe Tyr Glu Leu Trp Leu Lys Ser Gln  
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 Lys Asn Glu Lys Ser Glu Asp Ile Ala Ser Gln Ser Asn Lys Glu Asn  
 145 150 155 160  
 Gly Lys Gln Ile His Met Pro Thr Asp Tyr Ala Glu Val Thr Val Asp  
 165 170 175  
 Phe His Cys Trp Met Cys Gly Lys Asn Cys Asn Ser Glu Lys Gln Trp  
 180 185 190  
 Gln Gly His Ile Ser Ser Glu Lys His Lys Glu Lys Val Phe His Thr  
 195 200 205  
 Glu Asp Asp Gln Tyr Cys Trp Gln His Arg Phe Pro Thr Gly Tyr Phe  
 210 215 220  
 Ser Ile Cys Asp Arg Tyr Met Asn Gly Thr Cys Pro Glu Gly Asn Ser  
 225 230 235 240  
 Cys Lys Phe Ala His Gly Asn Ala Glu Leu His Glu Trp Glu Glu Arg  
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 Arg Asp Ala Leu Lys Met Lys Leu Asn Lys Ala Arg Lys Asp His Leu  
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 <212> DNA  
 <213> Homo sapiens

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<210> 5408

<211> 335

<212> PRT

<213> Homo sapiens

<400> 5408

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Lys	Glu	Met	Val	Leu	Ser	Glu	Lys	Val	Ser	Gln	Leu	Met	Glu	Trp	Thr
		35					40					45			
Asn	Lys	Arg	Pro	Val	Ile	Arg	Met	Asn	Gly	Asp	Lys	Phe	Arg	Arg	Leu
	50					55					60				
Val	Lys	Ala	Pro	Pro	Arg	Asn	Tyr	Ser	Val	Ile	Val	Met	Phe	Thr	Ala
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&lt;210&gt; 5409

&lt;211&gt; 2019

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5409

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<212> PRT

<213> Homo sapiens

<400> 5410

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&lt;211&gt; 2802

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5411

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 <213> Homo sapiens

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&lt;210&gt; 5413

&lt;211&gt; 1677

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5413

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5415

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&lt;211&gt; 528

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5418

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Leu	Arg	Ser	Gln	Val	Met	Ser	Met	Ala	Arg	Pro	Gln	Leu	Ser	His	Thr
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 <212> DNA  
 <213> Homo sapiens

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Thr	Arg	Arg	Tyr	Tyr	Arg	Ser	Pro	Ser	Arg	Tyr	Arg	Ser	Arg	Ser	Arg
	50		55		60										
Ser	Arg	Ser	Arg	Ser	Arg	Gly	Arg	Ser	Tyr	Cys	Gly	Arg	Ala	Tyr	Ala
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Ile	Ala	Arg	Gly	Gln	Arg	Tyr	Tyr	Gly	Phe	Gly	Arg	Thr	Val	Tyr	Pro
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Glu	Glu	His	Ser	Arg	Trp	Arg	Asp	Arg	Ser	Arg	Thr	Arg	Ser	Arg	Ser
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Ile	Ala	Lys	Thr	Asn	Ala	Ala	Lys	Ala	Leu	Gly	Thr	Thr	Asn	Ile	Asp
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Leu	Pro	Ala	Ser	Leu	Arg	Thr	Val	Pro	Ser	Ala	Lys	Glu	Thr	Ser	Arg
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&lt;210&gt; 5421

&lt;211&gt; 1239

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5421

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&lt;210&gt; 5422

&lt;211&gt; 276

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5422

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			20					25					30		
Thr	Gln	Pro	Leu	Gly	Leu	Leu	Arg	Leu	Leu	Gln	Leu	Val	Ser	Thr	Cys
			35				40					45			
Val	Ala	Phe	Ser	Leu	Val	Ala	Ser	Val	Gly	Ala	Trp	Thr	Gly	Ser	Met
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Gly	Asn	Trp	Ser	Met	Phe	Thr	Trp	Cys	Phe	Cys	Phe	Ser	Val	Thr	Leu
65					70					75					80
Ile	Ile	Leu	Ile	Val	Glu	Leu	Cys	Gly	Leu	Gln	Ala	Arg	Phe	Pro	Leu
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Ser	Trp	Arg	Asn	Phe	Pro	Ile	Thr	Phe	Ala	Cys	Tyr	Ala	Ala	Leu	Phe
			100						105				110		
Cys	Leu	Ser	Ala	Ser	Ile	Ile	Tyr	Pro	Thr	Thr	Tyr	Val	Gln	Phe	Leu
			115				120					125			
Ser	His	Gly	Arg	Ser	Arg	Asp	His	Ala	Ile	Ala	Ala	Thr	Phe	Phe	Ser
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Cys	Ile	Ala	Cys	Val	Ala	Tyr	Ala	Thr	Glu	Val	Ala	Trp	Thr	Arg	Ala
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Arg	Pro	Gly	Glu	Ile	Thr	Gly	Tyr	Met	Ala	Thr	Val	Pro	Gly	Leu	Leu
				165					170					175	
Lys	Val	Leu	Glu	Thr	Phe	Val	Ala	Cys	Ile	Ile	Phe	Ala	Phe	Ile	Ser
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Val	Tyr	Ala	Ile	Cys	Phe	Ile	Leu	Ala	Ala	Ile	Ala	Ile	Leu	Leu	Asn
	210					215					220				
Leu	Gly	Glu	Cys	Thr	Asn	Val	Leu	Pro	Ile	Pro	Phe	Pro	Ser	Phe	Leu
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&lt;210&gt; 5424

&lt;211&gt; 570

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5424

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Lys	Tyr	Gln	Leu	Leu	Val	Tyr	His	Ala	Asp	Ser	Leu	Phe	His	Asp	Lys
		35					40					45			
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Lys	Ala	Leu	Ser	Lys	Thr	Ser	Lys	Val	Arg	Pro	Ser	Thr	Gly	Asn	Ser

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Tyr	Lys	Met	Ala	Glu	Cys	Tyr	Thr	Met	Leu	Lys	Gln	Asp	Lys	Asp	Ala
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Ile	Ala	Ile	Leu	Asp	Gly	Ile	Pro	Ser	Arg	Gln	Arg	Thr	Pro	Lys	Ile
		115					120					125			
Asn	Met	Met	Leu	Ala	Asn	Leu	Tyr	Lys	Lys	Ala	Gly	Gln	Glu	Arg	Pro
	130					135					140				
Ser	Val	Thr	Ser	Tyr	Lys	Glu	Val	Leu	Arg	Gln	Cys	Pro	Leu	Ala	Leu
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Phe	Asn	Ile	Ser	Asp	Gln	His	Ala	Glu	Pro	Trp	Val	Val	Ser	Gly	Cys
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His	Ser	Phe	Tyr	Ser	Lys	Arg	Tyr	Ser	Arg	Ala	Leu	Tyr	Leu	Gly	Ala
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Lys	Ala	Ile	Gln	Leu	Asn	Ser	Asn	Ser	Val	Gln	Ala	Leu	Leu	Leu	Lys
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Phe	Arg	Glu	Ala	Ile	Arg	Leu	Ala	Pro	Cys	Arg	Leu	Asp	Cys	Tyr	Glu
		355					360					365			
Gly	Leu	Ile	Glu	Cys	Tyr	Leu	Ala	Ser	Asn	Ser	Ile	Arg	Glu	Ala	Met
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<212> DNA
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<210> 5426
<211> 98
<212> PRT
<213> Homo sapiens
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<400> 5426
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Pro  Ser  Cys  Ala  Pro  Ala  Leu  Leu  Gly  Ser  Gly  Cys  Gly  Ser  Gly  Glu
              20              25              30
Ser  Cys  Asp  Arg  Gly  Cys  Leu  Ala  Ala  Ile  Leu  Ala  Ser  Thr  Ser  Ala
              35              40              45
Thr  Gln  Ala  Arg  Met  Cys  Pro  Val  Leu  Arg  Cys  Cys  Ser  Glu  Phe  Ile
              50              55              60
Glu  Ala  Xaa  Gly  Val  Val  Asp  Gly  Ile  Tyr  Arg  Leu  Ser  Gly  Val  Ser

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<210> 5430

<211> 94

<212> PRT

<213> Homo sapiens

<400> 5430

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Val	Lys	Gln	Glu	Arg	Gly	Glu	Gly	Pro	Arg	Ala	Gly	Glu	Lys	Gly	Ser
			20					25					30		
His	Glu	Glu	Glu	Val	Arg	Val	Pro	Ala	Leu	Ser	Trp	Gly	Arg	Pro	Arg
			35					40				45			
Ala	Pro	Ala	Pro	Ala	Ser	Lys	Pro	Arg	Pro	Arg	Leu	Asp	Leu	Asn	Cys
			50				55				60				
Leu	Trp	Leu	Arg	Pro	Gln	Pro	Ile	Phe	Leu	Trp	Lys	Leu	Arg	Pro	Arg
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<211> 3005

<212> DNA

<213> Homo sapiens

<400> 5431

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 180

ggcgcggcgg cgttccggga agttcgggtg cagtcgggtg tggtaggatt tctgtcacc  
240  
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360  
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420  
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&lt;210&gt; 5432

&lt;211&gt; 863

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5432

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Glu	Tyr	Leu	Leu	Arg	His	Leu	Ala	Arg	Met	Ala	Arg	His	Ser	Ala	Asn
				20				25					30		
Thr	Ser	Met	His	Ala	Arg	Asn	Leu	Ala	Ile	Val	Trp	Ala	Pro	Asn	Leu

		35					40					45			
Leu	Arg	Ser	Met	Glu	Leu	Glu	Ser	Val	Gly	Met	Gly	Gly	Ala	Ala	Ala
	50					55					60				
Phe	Arg	Glu	Val	Arg	Val	Gln	Ser	Val	Val	Val	Glu	Phe	Leu	Leu	Thr
65					70					75					80
His	Val	Asp	Val	Leu	Phe	Ser	Asp	Thr	Phe	Thr	Ser	Ala	Gly	Leu	Asp
				85					90					95	
Pro	Ala	Gly	Arg	Cys	Leu	Leu	Pro	Arg	Pro	Lys	Ser	Leu	Ala	Gly	Ser
			100					105					110		
Cys	Pro	Ser	Thr	Arg	Leu	Leu	Thr	Leu	Glu	Glu	Ala	Gln	Ala	Arg	Thr
		115					120					125			
Gln	Gly	Arg	Leu	Gly	Thr	Pro	Thr	Glu	Pro	Thr	Thr	Pro	Lys	Ala	Pro
	130					135						140			
Ala	Ser	Pro	Ala	Glu	Arg	Arg	Lys	Gly	Glu	Arg	Gly	Glu	Lys	Gln	Arg
145					150					155					160
Lys	Pro	Gly	Gly	Ser	Ser	Trp	Lys	Thr	Phe	Phe	Ala	Leu	Gly	Arg	Gly
				165					170					175	
Pro	Ser	Val	Pro	Arg	Lys	Lys	Pro	Leu	Pro	Trp	Leu	Gly	Gly	Thr	Arg
			180					185					190		
Ala	Pro	Pro	Gln	Pro	Ser	Gly	Ser	Arg	Pro	Asp	Thr	Val	Thr	Leu	Arg
		195					200					205			
Ser	Ala	Lys	Ser	Glu	Glu	Ser	Leu	Ser	Ser	Gln	Ala	Ser	Gly	Ala	Gly
	210					215					220				
Leu	Gln	Arg	Leu	His	Arg	Leu	Arg	Arg	Pro	His	Ser	Ser	Ser	Asp	Ala
225					230					235					240
Phe	Pro	Val	Gly	Pro	Ala	Pro	Ala	Gly	Ser	Cys	Glu	Ser	Leu	Ser	Ser
				245					250					255	
Ser	Ser	Ser	Ser	Glu	Ser	Ser	Ser	Ser	Glu	Ser	Ser	Ser	Ser	Ser	Ser
			260					265					270		
Glu	Ser	Ser	Ala	Ala	Gly	Leu	Gly	Ala	Leu	Ser	Gly	Ser	Pro	Ser	His
		275					280					285			
Arg	Thr	Ser	Ala	Trp	Leu	Asp	Asp	Gly	Asp	Glu	Leu	Asp	Phe	Ser	Pro
	290					295					300				
Pro	Arg	Cys	Leu	Glu	Gly	Leu	Arg	Gly	Leu	Asp	Phe	Asp	Pro	Leu	Thr
305					310					315					320
Phe	Arg	Cys	Ser	Ser	Pro	Thr	Pro	Gly	Asp	Pro	Ala	Pro	Pro	Ala	Ser
			325						330					335	
Pro	Ala	Pro	Pro	Ala	Pro	Ala	Ser	Ala	Phe	Pro	Pro	Arg	Val	Thr	Pro
			340					345					350		
Gln	Ala	Ile	Ser	Pro	Arg	Gly	Pro	Thr	Ser	Pro	Ala	Ser	Pro	Ala	Ala
		355					360					365			
Leu	Asp	Ile	Ser	Glu	Pro	Leu	Ala	Val	Ser	Val	Pro	Pro	Ala	Val	Leu
	370					375					380				
Glu	Leu	Leu	Gly	Ala	Gly	Gly	Ala	Pro	Ala	Ser	Ala	Thr	Pro	Thr	Pro
385					390					395			</		

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465          470          475          480
Ala Glu Arg Ala Gln Gln Val Ala Glu Gln Gln Ser Gln Gln Glu Cys
          485          490          495
Gly Gly Thr Pro Pro Ala Ser Gln Ser Pro Phe His Arg Ser Leu Ser
          500          505          510
Leu Glu Val Gly Gly Glu Pro Leu Gly Thr Ser Gly Ser Gly Pro Pro
          515          520          525
Pro Asn Ser Leu Ala His Pro Gly Ala Trp Val Pro Gly Pro Pro Pro
          530          535          540
Tyr Leu Pro Arg Gln Gln Ser Asp Gly Ser Leu Leu Arg Ser Gln Arg
545          550          555          560
Pro Met Gly Thr Ser Arg Arg Gly Leu Arg Gly Pro Ala Gln Val Ser
          565          570          575
Ala Gln Leu Arg Ala Gly Gly Gly Gly Arg Asp Ala Pro Glu Ala Ala
          580          585          590
Ala Gln Ser Pro Cys Ser Val Pro Ser Gln Val Pro Thr Pro Gly Phe
          595          600          605
Phe Ser Pro Ala Pro Arg Glu Cys Leu Pro Pro Phe Leu Gly Val Pro
          610          615          620
Lys Pro Gly Leu Tyr Pro Leu Gly Pro Pro Ser Phe Gln Pro Ser Ser
625          630          635          640
Pro Ala Pro Val Trp Arg Ser Ser Leu Gly Pro Pro Ala Pro Leu Asp
          645          650          655
Arg Gly Glu Asn Leu Tyr Tyr Glu Ile Gly Ala Ser Glu Gly Ser Pro
          660          665          670
Tyr Ser Gly Pro Thr Arg Ser Trp Ser Pro Phe Arg Ser Met Pro Pro
          675          680          685
Asp Arg Leu Asn Ala Ser Tyr Gly Met Leu Gly Gln Ser Pro Pro Leu
          690          695          700
His Arg Ser Pro Asp Phe Leu Leu Ser Tyr Pro Pro Ala Pro Ser Cys
705          710          715          720
Phe Pro Pro Asp His Leu Gly Tyr Ser Ala Pro Gln His Pro Ala Arg
          725          730          735
Arg Pro Thr Pro Pro Glu Pro Leu Tyr Val Asn Leu Ala Leu Gly Pro
          740          745          750
Arg Gly Pro Ser Pro Ala Ser Ser Ser Ser Ser Ser Pro Pro Ala His
          755          760          765
Pro Arg Ser Arg Ser Asp Pro Gly Pro Pro Val Pro Arg Leu Pro Gln
          770          775          780
Lys Gln Arg Ala Pro Trp Gly Pro Arg Thr Pro His Arg Val Pro Gly
785          790          795          800
Pro Trp Gly Pro Pro Glu Pro Leu Leu Leu Tyr Arg Ala Ala Pro Pro
          805          810          815
Ala Tyr Gly Arg Gly Gly Glu Leu His Arg Gly Ser Leu Tyr Arg Asn
          820          825          830
Gly Gly Gln Arg Gly Glu Gly Ala Gly Pro Pro Pro Pro Tyr Pro Thr
          835          840          845
Pro Ser Trp Ser Leu His Ser Glu Gly Gln Thr Arg Ser Tyr Cys
          850          855          860

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&lt;210&gt; 5433

&lt;211&gt; 385

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 5433

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240  
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385

&lt;210&gt; 5434

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5434

Asp	Leu	Thr	Asn	Leu	His	Tyr	Ser	Thr	Pro	Leu	Pro	Ala	Ser	Leu	Asp
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Thr	Thr	Asp	His	His	Phe	Gly	Ser	Met	Ser	Val	Gly	Asn	Ser	Val	Asn
			20					25					30		
Asn	Ile	Pro	Ala	Ala	Met	Thr	His	Leu	Gly	Ile	Arg	Ser	Ser	Ser	Gly
		35					40					45			
Leu	Gln	Ser	Ser	Arg	Ser	Asn	Pro	Ser	Ile	Gln	Ala	Thr	Leu	Asn	Lys
	50					55					60				
Thr	Val	Leu	Ser	Ser	Ser	Leu	Asn	Asn	His	Pro	Gln	Thr	Ser	Val	Pro
65					70					75				80	
Asn	Ala	Ser	Ala	Leu	His	Pro	Ser	Leu	Arg	Leu	Phe	Ser	Leu	Ser	Asn
			85					90					95		
Pro	Ser	Leu	Ser	Thr	Thr	Asn	Leu	Ser	Gly	Pro	Ser	Arg	Arg	Arg	Gln
		100					105					110			
Pro	Pro	Val	Ser	Pro	Leu	Thr	Leu	Ser	Pro	Gly	Pro	Glu	Ala	His	Gln
		115					120					125			

&lt;210&gt; 5435

&lt;211&gt; 617

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5435

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120  
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180  
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240

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 300  
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 360  
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 420  
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 480  
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 600  
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 617

<210> 5436

<211> 119

<212> PRT

<213> Homo sapiens

<400> 5436

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His	Pro	Leu	Ile	Ala	Arg	Ala	Lys	Gly	Lys	Thr	Met	Ala	Ser	Ser	Asp
			20					25					30		
Gly	Thr	Ile	Arg	Ala	Asn	Leu	Tyr	Phe	Lys	Ile	Leu	Gln	Pro	Lys	Met
		35					40					45			
Lys	Asn	Asn	His	Ile	Arg	Ser	Cys	Arg	Ala	Val	Leu	His	Arg	Ser	Asp
	50					55					60				
Leu	Leu	Val	Arg	Lys	Leu	Leu	Ala	Leu	Cys	Lys	Glu	Lys	Glu	Asp	Cys
65					70					75				80	
Asn	Arg	Asn	His	Glu	Pro	Gly	Arg	Glu	Met	Gly	Leu	Glu	Lys	Gly	Glu
			85						90					95	
Glu	Asn	Trp	Met	Ser	Asp	Ile	Ser	Glu	Thr	Gln	Asp	Pro	Phe	Leu	Gln
			100					105					110		
Tyr	Tyr	Ser	Thr	Ile	Val	Met									
			115												

<210> 5437

<211> 1422

<212> DNA

<213> Homo sapiens

<400> 5437

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 180  
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 240  
 aagcgaaagg cttactcgga gcgtagaatc atgggggtact caatgcagga gatgtatgag  
 300

gtggtgtcca acgtccagga gtatcgtgag tttgtgccct ggtgtaagaa gtctctggtg  
 360  
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 660  
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 840  
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 960  
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 1380  
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 1422

&lt;210&gt; 5438

&lt;211&gt; 245

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5438

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Ser	Leu	Leu	Leu	Pro	Arg	Ala	Ala	Gln	Ile	Leu	Ala	Ala	Glu	Ala	Gly
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[illegible]

<210> 5439

<211> 4234

<212> DNA

<213> Homo sapiens

<400> 5439

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<210> 5440

<211> 461

<212> PRT

<213> Homo sapiens

<400> 5440

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Arg	Gln	Leu	Arg	Cys	Leu	Val	Val	Asp	Glu	Ala	Asp	Arg	Met	Val	Glu	65	70	75	80
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Thr	Leu	Val	His	Gln	Ala	Pro	Ala	Arg	Ile	Leu	His	Lys	Lys	His	Thr	115	120	125	
Lys	Lys	Met	Asp	Lys	Thr	Ala	Lys	Leu	Asp	Leu	Leu	Met	Gln	Lys	Ile	130	135	140	
Gly	Met	Arg	Gly	Lys	Pro	Lys	Val	Ile	Asp	Leu	Thr	Arg	Asn	Glu	Ala	145	150	155	160
Thr	Val	Glu	Thr	Leu	Thr	Glu	Thr	Lys	Ile	His	Cys	Glu	Thr	Asp	Glu	165	170	175	
Lys	Asp	Phe	Tyr	Leu	Tyr	Tyr	Phe	Leu	Met	Gln	Tyr	Pro	Gly	Arg	Ser	180	185	190	
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Lys	Val	Gln	His	Val	Ile	His	Tyr	Gln	Val	Pro	Arg	Thr	Ser	Glu	Ile	260	265	270	
Tyr	Val	His	Arg	Ser	Gly	Arg	Thr	Ala	Arg	Ala	Thr	Asn	Glu	Gly	Leu	275	280	285	
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&lt;210&gt; 5441

&lt;211&gt; 1635

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5441

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&lt;210&gt; 5442

&lt;211&gt; 250

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5442

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Lys	Asn	Lys	Val	Val	Gly	Trp	Arg	Ser	Gly	Val	Glu	Lys	Asp	Leu	Asp
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Glu	Val	Leu	Gln	Thr	His	Ser	Val	Phe	Val	Asn	Val	Ser	Lys	Gly	Gln
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&lt;210&gt; 5443

&lt;211&gt; 2021

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5443

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 2021

&lt;210&gt; 5444

&lt;211&gt; 438

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5444

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			20					25					30		
Lys	Ile	Arg	Leu	Arg	Cys	Gln	Lys	Gly	Ile	Pro	Pro	Ser	Leu	Arg	Gly
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Arg	Ala	Trp	Gln	Tyr	Leu	Ser	Gly	Gly	Lys	Val	Lys	Leu	Gln	Gln	Asn
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Pro	Gly	Lys	Phe	Asp	Glu	Leu	Asp	Met	Ser	Pro	Gly	Asp	Pro	Lys	Trp
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Gln	Ala	Pro	Ile	Ala	Ala	Val	Leu	Leu	Met	His	Met	Pro	Ala	Glu	Gln		
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&lt;210&gt; 5445

&lt;211&gt; 1187

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5445

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&lt;210&gt; 5446

&lt;211&gt; 107

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5446

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&lt;210&gt; 5447

&lt;211&gt; 1444

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5447

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<213> Homo sapiens

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			20				25						30		
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Glu	Tyr	Asn	Leu	Pro	His	Thr	Tyr	Val	Glu	Met	Gln	Ser	Leu	Gln	Ile

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Ala	Ala	Phe	Leu	Phe	Thr	Val	Cys	His	Val	Gly	Ile	Xaa	Val	Gln	Asp
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Trp	Phe	Thr	Asp	Leu	Ser	Leu	Tyr	Arg	Phe	Leu	Gln	Thr	Ala	Glu	Met
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Val	Lys	Pro	Ser	Thr	Pro	Ser	Pro	Ser	His	Glu	Ser	Ser	Ser	Ser	Ser
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Gly	Ser	Asp	Glu	Gly	Thr	Glu	Tyr	Tyr	Pro	His	Leu	Val	Phe	Phe	Gln
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Asn	Lys	Ala	Arg	Arg	Glu	Asp	Phe	Cys	Pro	Arg	Lys	Leu	Arg	Gln	Met
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Gly	Thr	Leu	Ser	Met	Leu	Gln	Cys	Asn	Val	Phe	Pro	Gly	Leu	Pro	Pro
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Asp	Phe	Leu	Asp	Ser	Glu	Val	Asn	Leu	Phe	Leu	Val	Pro	Phe	Met	Asp
	195						200				205				
Ser	Glu	Ala	Glu	Ser	Glu	Asn	Pro	Pro	Arg	Ala	Gly	Pro	Gly	Ser	Ser
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Pro	Leu	Phe	Ser	Leu	Leu	Pro	Gly	Tyr	Arg	Gly	His	Pro	Ser	Phe	Gln
225					230				235					240	
Ser	Leu	Val	Ser	Lys	Leu	Arg	Ser	Gln	Val	Met	Ser	Met	Ala	Arg	Pro
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Ala	Arg	Ile	Trp	Asp	Gly	Val	Arg	Lys	Ser	Ser	Ala	Leu	Ala	Glu	Tyr
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&lt;210&gt; 5451

&lt;211&gt; 1184

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5451

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<212> PRT

<213> Homo sapiens

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			20					25					30		
Ser	Ser	Pro	Glu	Leu	Ser	Val	Ala	Phe	His	His	Ser	Gly	Pro	Ser	Cys
		35					40					45			
Leu	Ser	Pro	Ala	Leu	Ser	Gln	Thr	Thr	Gln	Lys	Ser	Gly	His	Leu	Trp
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Ala	Pro	Gly	Met	Val	Thr	Glu	Glu	Lys	His	Ala	Val	Pro	Val	Ser	Pro
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Gly	Phe	Cys	Gln	Lys	Ile	Glu	Gln	Val	Gln	Leu	Thr	His	Cys	Tyr	Cys
			85					90					95		
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Gln	Val	Arg	His	Leu	Glu	Pro	Pro	Gly	Glu	Gly	Pro	Pro	Ser	Arg	Ala
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Leu	Tyr	Leu	Glu	Asp	Glu	Ala	Gln	Thr	Pro	Thr	Pro	Leu	Ser	Pro	Pro
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			165					170						175	
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 1860  
 cccatgccac aacctgggct cctggctaca gcagggtcc agggactcca aataaatgtt  
 1920  
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 1974

&lt;210&gt; 5454

&lt;211&gt; 320

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5454

Xaa	Gly	Arg	Pro	Ala	Met	Glu	Pro	Gly	Ser	Val	Glu	Asn	Leu	Ser	Ile
1				5					10					15	
Val	Tyr	Arg	Ser	Arg	Asp	Phe	Leu	Val	Val	Asn	Lys	His	Trp	Asp	Val
			20					25					30		
Arg	Ile	Asp	Ser	Lys	Ala	Trp	Arg	Glu	Thr	Leu	Thr	Leu	Gln	Lys	Gln
		35					40					45			
Leu	Arg	Tyr	Arg	Phe	Pro	Glu	Leu	Ala	Asp	Pro	Asp	Thr	Cys	Tyr	Gly
	50					55				60					
Phe	Arg	Phe	Cys	His	Gln	Leu	Asp	Phe	Ser	Thr	Ser	Gly	Ala	Leu	Cys
65					70				75					80	
Val	Ala	Leu	Asn	Lys	Ala	Ala	Ala	Gly	Ser	Ala	Tyr	Arg	Cys	Phe	Lys
			85					90					95		
Glu	Arg	Arg	Val	Thr	Lys	Ala	Tyr	Leu	Ala	Leu	Leu	Arg	Gly	His	Ile
			100					105					110		
Gln	Glu	Ser	Arg	Val	Thr	Ile	Ser	His	Ala	Ile	Gly	Arg	Asn	Ser	Thr
		115					120					125			
Glu	Gly	Arg	Ala	His	Thr	Met	Cys	Ile	Glu	Gly	Ser	Gln	Gly	Val	Ala
	130					135					140				
Gly	Cys	Glu	Asn	Pro	Lys	Pro	Ser	Leu	Thr	Asp	Leu	Val	Val	Leu	Glu
145					150					155				160	
His	Gly	Leu	Tyr	Ala	Gly	Asp	Pro	Val	Ser	Lys	Val	Leu	Leu	Lys	Pro
			165					170						175	
Leu	Thr	Gly	Arg	Thr	His	Gln	Leu	Arg	Val	His	Cys	Ser	Ala	Leu	Gly
		180						185					190		
His	Pro	Val	Val	Gly	Asp	Leu	Thr	Tyr	Gly	Glu	Val	Ser	Gly	Arg	Glu
		195				200						205			
Asp	Arg	Pro	Phe	Arg	Met	Met	Leu	His	Ala	Phe	Tyr	Leu	Arg	Ile	Pro

210		215		220
Thr Asp Thr Glu Cys Val	Glu Val Cys Thr Pro	Asp Pro Phe Leu Pro		
225		230	235	240
Ser Leu Asp Ala Cys Trp	Ser Pro His Thr Leu	Leu Gln Ser Leu Asp		
	245	250	255	
Gln Leu Val Gln Ala Leu	Arg Ala Thr Pro Asp	Pro Asp Pro Glu Asp		
	260	265	270	
Arg Gly Pro Arg Pro Gly	Ser Pro Ser Ala Leu	Leu Pro Gly Pro Gly		
	275	280	285	
Arg Pro Pro Pro Pro Pro	Thr Lys Pro Pro Glu	Thr Glu Ala Gln Arg		
	290	295	300	
Gly Pro Cys Leu Gln Trp	Leu Ser Glu Trp Thr	Leu Glu Pro Asp Ser		
305	310	315	320	

&lt;210&gt; 5455

&lt;211&gt; 975

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5455

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240
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420
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<210> 5456  
<211> 149  
<212> PRT  
<213> Homo sapiens

<400> 5456  
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Leu Tyr Gly Leu Ala Ser Phe Arg Pro Gly Val Gly Pro His Pro Thr  
35 40 45  
His Cys Pro Leu Ala Val Arg Leu Ala Cys Pro Ala Val Pro Thr Thr  
50 55 60  
Val Val Lys Gln Arg Leu Gln Met Tyr Asn Ser Gln His Arg Ser Ala  
65 70 75 80  
Ile Ser Cys Ile Arg Thr Val Trp Arg Thr Glu Gly Leu Gly Ala Phe  
85 90 95  
Tyr Arg Ser Tyr Thr Thr Gln Leu Thr Met Asn Ile Pro Phe Gln Ser  
100 105 110  
Ile His Phe Ile Thr Tyr Glu Phe Leu Gln Glu Gln Val Asn Pro His  
115 120 125  
Arg Thr Tyr Asn Pro Gln Ser His Ile Ile Ser Gly Gly Leu Ala Gly  
130 135 140  
Ala Leu Ala Ala Ala  
145

<210> 5457  
<211> 448  
<212> DNA  
<213> Homo sapiens

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120  
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180  
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240  
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300  
tcccattata atattaaatt tgcttcttcg tgaggtcaca cctcacatcc ccagtgtcac  
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420  
aaataaataa ataaataaaa gaaaaaaaa  
448

<210> 5458  
<211> 81  
<212> PRT

<213> Homo sapiens

<400> 5458

Arg	Ser	Gly	Ser	Val	Gly	Ser	Gln	Ala	Val	Ala	Arg	Arg	Met	Asp	Gly
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Asp	Ser	Arg	Asp	Gly	Gly	Gly	Gly	Lys	Asp	Ala	Thr	Gly	Ser	Glu	Asp
			20					25					30		
Tyr	Glu	Asn	Leu	Pro	Thr	Ser	Ala	Ser	Val	Ser	Thr	His	Met	Thr	Ala
		35					40					45			
Gly	Ala	Met	Ala	Gly	Ile	Leu	Glu	His	Ser	Val	Met	Tyr	Pro	Val	Asp
	50					55					60				
Ser	Val	Lys	Val	Met	Trp	Thr	Val	Glu	Leu	Cys	Ala	Gly	His	Phe	Gln
65					70					75					80
Pro															

<210> 5459

<211> 1468

<212> DNA

<213> Homo sapiens

<400> 5459

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120  
cggatggagc tgcgcagcgg gagcgtgggc agccaggcgg tggcgcgagg gatggatggg  
180  
gacagccgag atggcggcgg cggcaaggac gccaccgggt cggaggacta cgagaacctg  
240  
ccgactagcg cctccgtgtc caccacatg acagcaggag cgatggccgg gatcctggag  
300  
cactcgggtca tgtaccgggt ggactcgggt aagacacgaa tgcagagttt gagtccagat  
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420  
ttctggaggc ccttgcgagg cgtcaacgtc atgatcatgg gtgcaggggc agcccatgcc  
480  
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540  
ggaaacagcc acctagccaa cggtatTTTT aaagcgtttg tctggagtta gaaagtcttc  
600  
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720  
cacgcacaca cagcgcgcg cagacacatg cttttttctg tccccctccg ctttctgaag  
780  
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840  
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900  
gaaaccctga atagaaacaa aacttttgaa tgctggattc aaaaaaaaaa aaaagttatc  
960

tggacagctt ctttgagact atttaaaaac tggtaacaac ggtctctaca acgccaagat  
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 1468

<210> 5460

<211> 155

<212> PRT

<213> Homo sapiens

<400> 5460

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			20					25					30		
Ser	Glu	Asp	Tyr	Glu	Asn	Leu	Pro	Thr	Ser	Ala	Ser	Val	Ser	Thr	His
		35				40						45			
Met	Thr	Ala	Gly	Ala	Met	Ala	Gly	Ile	Leu	Glu	His	Ser	Val	Met	Tyr
	50					55					60				
Pro	Val	Asp	Ser	Val	Lys	Thr	Arg	Met	Gln	Ser	Leu	Ser	Pro	Asp	Pro
65					70				75					80	
Lys	Ala	Gln	Tyr	Thr	Ser	Ile	Tyr	Gly	Ala	Leu	Lys	Lys	Ile	Met	Gln
			85					90					95		
Thr	Glu	Gly	Phe	Trp	Arg	Pro	Leu	Arg	Gly	Val	Asn	Val	Met	Ile	Met
			100					105					110		
Gly	Ala	Gly	Pro	Ala	His	Ala	Met	Tyr	Phe	Ala	Cys	Tyr	Glu	Asn	Met
		115					120					125			
Lys	Arg	Thr	Leu	Asn	Asp	Val	Phe	His	His	Gln	Gly	Asn	Ser	His	Leu
	130					135						140			
Ala	Asn	Gly	Ile	Leu	Lys	Ala	Phe	Val	Trp	Ser					
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<210> 5461

<211> 1725

<212> DNA

<213> Homo sapiens

<400> 5461

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120  
ccgggaggca gcaacgcaag gagccaaaat agtttctttg ccggaatgct ttaattctcc  
180  
atatggagcg aaatattttc ctgaatatgc agagaaaatt cctgggtgaat ccacacagaa  
240  
gctttctgaa gtagcaaagg aatgcagcat atatctcatt ggaggtaact tcctaccac  
300  
aaggctctat ccctgaagag gatgctggga aattatataa cacctgtgct gtgtttgggc  
360  
ctgatggaac ttactagca aagtatagaa agatccatct gtttgacatt gatgttctctg  
420  
gaaaaattac atttcaagaa tctaaaacat tgagtccggg tgatagtctc tccacatttg  
480  
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600  
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720  
cctattaggc tacagttgag tacctcccat ctagataata agcattcaat tagaatgaat  
780  
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900  
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960  
catttggtgca ttttctgttt ggaaacagct tactgcagag tgggtctggg catctgctac  
1020  
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1080  
tatccaggag cttttaatct gaccactgga ccagcccatt gggagttact tcagcgaagc  
1140  
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1200  
tcctatgttg cctggggaca cagcaccgtg gtgaaccctt ggggggaggt tctagccaaa  
1260  
gctggcacag aagaagcaat cgtgtattca gacatagacc tgaagaagct ggctgaaata  
1320  
cgccagcaaa tccccgtttt tagacagaag cgatcagacc tctatgctgt ggagatgaaa  
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1680

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1725

<210> 5462

<211> 159

<212> PRT

<213> Homo sapiens

<400> 5462

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Phe	His	Leu	Cys	Ile	Phe	Cys	Leu	Glu	Thr	Ala	Tyr	Cys	Arg	Val	Gly
			20					25					30		
Leu	Gly	Ile	Cys	Tyr	Asp	Met	Arg	Phe	Ala	Glu	Leu	Ala	Gln	Ile	Tyr
		35					40					45			
Ala	Gln	Arg	Gly	Cys	Gln	Leu	Leu	Val	Tyr	Pro	Gly	Ala	Phe	Asn	Leu
	50					55					60				
Thr	Thr	Gly	Pro	Ala	His	Trp	Glu	Leu	Leu	Gln	Arg	Ser	Arg	Ala	Val
65					70					75				80	
Asp	Asn	Gln	Val	Tyr	Val	Ala	Thr	Ala	Ser	Pro	Ala	Arg	Asp	Asp	Lys
			85						90				95		
Ala	Ser	Tyr	Val	Ala	Trp	Gly	His	Ser	Thr	Val	Val	Asn	Pro	Trp	Gly
			100					105					110		
Glu	Val	Leu	Ala	Lys	Ala	Gly	Thr	Glu	Glu	Ala	Ile	Val	Tyr	Ser	Asp
		115					120					125			
Ile	Asp	Leu	Lys	Lys	Leu	Ala	Glu	Ile	Arg	Gln	Gln	Ile	Pro	Val	Phe
	130					135					140				
Arg	Gln	Lys	Arg	Ser	Asp	Leu	Tyr	Ala	Val	Glu	Met	Lys	Lys	Pro	
145					150					155					

<210> 5463

<211> 792

<212> DNA

<213> Homo sapiens

<400> 5463

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120  
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180  
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240  
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300  
atttttatca tatttccacc atcacttcag ggttttaaga gtcagtgtct acctgggagg  
360  
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 660  
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<210> 5464

<211> 111

<212> PRT

<213> Homo sapiens

<400> 5464

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Leu	His	Asp	Ala	Val	Met	Asn	Pro	Ala	Glu	Val	Val	Lys	Gln	Arg	Leu
			20					25					30		
Gln	Met	Tyr	Asn	Ser	Gln	His	Arg	Ser	Ala	Ile	Ser	Cys	Ile	Arg	Thr
		35					-40-					45			
Val	Trp	Arg	Thr	Glu	Gly	Leu	Gly	Ala	Phe	Tyr	Arg	Ser	Tyr	Thr	Thr
	50					55					60				
Gln	Leu	Thr	Met	Asn	Ile	Pro	Phe	Gln	Ser	Ile	His	Phe	Ile	Thr	Tyr
65					70					75					80
Glu	Phe	Leu	Gln	Glu	Gln	Val	Asn	Pro	His	Arg	Thr	Tyr	Asn	Pro	Gln
			85					90					95		
Ser	His	Ile	Ile	Ser	Gly	Gly	Leu	Ala	Gly	Ala	Leu	Ala	Ala	Ala	
			100					105					110		

<210> 5465

<211> 497

<212> DNA

<213> Homo sapiens

<400> 5465

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497

<210> 5466  
<211> 134  
<212> PRT  
<213> Homo sapiens

<400> 5466  
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20 25 30  
Val Arg Asp Glu Pro Pro Ala Lys Pro Val Gly Met Ser Gly Pro Ser  
35 40 45  
Trp Trp Asp Cys Leu Gly His Arg His Gln His Gly Val Arg Ala Ile  
50 55 60  
Ser Gly Asp Ile Gly Gly Ala Thr Thr Arg Trp Gly Ile Phe Asn Arg  
65 70 75 80  
Leu Glu Pro Leu Arg Leu Glu Arg Pro Thr Pro Gly Arg Arg Pro Pro  
85 90 95  
Leu Thr Pro Leu Leu Pro Leu Leu Trp Asp Pro Pro Val Asp Thr Pro  
100 105 110  
Asp Glu Asp Thr Gln Glu Ala Ser Ser Gln Asp Arg Arg Gln Leu Pro  
115 120 125  
Gly Gln Pro Arg Ser Ala  
130

<210> 5467  
<211> 1329  
<212> DNA  
<213> Homo sapiens

<400> 5467  
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120  
cccggatcca gcttcttgga cttgggggat ctgaacgagt cggacttcct caacaatgcg  
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240  
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360  
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420  
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<210> 5468

<211> 363

<212> PRT

<213> Homo sapiens

<400> 5468

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Ser	Ser	Phe	Leu	Asp	Leu	Gly	Asp	Leu	Asn	Glu	Ser	Asp	Phe	Leu	Asn
			20					25					30		
Asn	Ala	His	Phe	Pro	Glu	His	Leu	Asp	His	Phe	Thr	Glu	Asn	Met	Glu
		35					40					45			
Asp	Phe	Ser	Asn	Asp	Leu	Phe	Ser	Ser	Phe	Phe	Asp	Asp	Pro	Val	Leu
	50					55					60				
Asp	Glu	Lys	Ser	Pro	Leu	Leu	Asp	Met	Glu	Leu	Asp	Ser	Pro	Thr	Pro
65					70					75					80
Gly	Ile	Gln	Ala	Glu	His	Ser	Tyr	Ser	Leu	Ser	Gly	Asp	Ser	Ala	Pro
			85						90					95	
Gln	Ser	Pro	Leu	Val	Pro	Ile	Lys	Met	Glu	Asp	Thr	Thr	Gln	Asp	Ala
			100					105					110		
Glu	His	Gly	Ala	Trp	Ala	Leu	Gly	His	Lys	Leu	Cys	Ser	Ile	Met	Val
		115					120					125			
Lys	Gln	Glu	Gln	Ser	Pro	Glu	Leu	Pro	Val	Asp	Pro	Leu	Ala	Ala	Pro
						135					140				
Ser	Ala	Met	Ala	Ala	Ala	Ala	Ala	Met	Ala	Thr	Thr	Pro	Leu	Leu	Gly
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Leu	Ser	Pro	Leu	Ser	Arg	Leu	Pro	Ile	Pro	His	Gln	Ala	Pro	Gly	Glu

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Met	Thr	Gln	Leu	Pro	Val	Ile	Lys	Ala	Glu	Pro	Leu	Glu	Val	Asn	Gln		
			180					185					190				
Phe	Leu	Lys	Val	Thr	Pro	Glu	Asp	Leu	Val	Gln	Met	Pro	Pro	Thr	Pro		
		195					200					205					
Pro	Ser	Ser	His	Gly	Ser	Asp	Ser	Asp	Gly	Ser	Gln	Ser	Pro	Arg	Ser		
	210					215					220						
Leu	Pro	Pro	Ser	Ser	Pro	Val	Arg	Pro	Met	Ala	Arg	Ser	Ser	Thr	Ala		
225					230					235					240		
Ile	Ser	Ser	Ser	Pro	Leu	Leu	Thr	Ala	Pro	His	Lys	Leu	Gln	Gly	Thr		
			245					250					255				
Ser	Gly	Pro	Leu	Val	Leu	Thr	Glu	Glu	Glu	Lys	Arg	Thr	Leu	Ile	Ala		
		260						265					270				
Glu	Gly	Tyr	Pro	Ile	Pro	Thr	Lys	Leu	Pro	Leu	Thr	Lys	Ser	Glu	Glu		
	275						280					285					
Lys	Ala	Leu	Lys	Lys	Ile	Arg	Arg	Lys	Ile	Lys	Asn	Lys	Ile	Ser	Ala		
	290					295					300						
Gln	Glu	Ser	Arg	Arg	Lys	Lys	Lys	Glu	Tyr	Met	Asp	Ser	Leu	Glu	Lys		
305					310					315					320		
Lys	Val	Glu	Ser	Cys	Ser	Thr	Glu	Asn	Leu	Glu	Leu	Arg	Lys	Lys	Val		
			325					330					335				
Glu	Thr	Leu	Glu	Asn	Ala	Asn	Ser	Phe	Ser	Ser	Gly	Ile	Gln	Pro	Leu		
		340						345					350				
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&lt;210&gt; 5469

&lt;211&gt; 1292

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5469

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660

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 1292

&lt;210&gt; 5470

&lt;211&gt; 427

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5470

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Trp	Leu	Gln	Gln	Ser	Tyr	Gln	Ala	Val	Lys	Glu	Lys	Ser	Ser	Glu	Ala
			20					25					30		
Leu	Glu	Phe	Met	Lys	Arg	Asp	Leu	Thr	Glu	Phe	Thr	Gln	Val	Val	Gln
		35					40					45			
His	Asp	Thr	Ala	Cys	Thr	Ile	Ala	Ala	Thr	Ala	Ser	Val	Val	Lys	Glu
	50					55					60				
Lys	Leu	Ala	Thr	Glu	Gly	Ser	Ser	Gly	Ala	Thr	Glu	Lys	Met	Lys	Lys
65					70				75					80	
Gly	Leu	Ser	Asp	Phe	Leu	Gly	Val	Ile	Ser	Asp	Thr	Phe	Ala	Pro	Ser
			85					90					95		
Pro	Asp	Lys	Thr	Ile	Asp	Cys	Asp	Val	Ile	Thr	Leu	Met	Gly	Thr	Pro
		100						105					110		
Ser	Gly	Thr	Ala	Glu	Pro	Tyr	Asp	Gly	Thr	Lys	Ala	Arg	Leu	Tyr	Ser
	115					120						125			
Leu	Gln	Ser	Asp	Pro	Ala	Thr	Tyr	Cys	Asn	Glu	Pro	Asp	Gly	Pro	Pro
	130					135					140				
Glu	Leu	Phe	Asp	Ala	Trp	Leu	Ser	Gln	Phe	Cys	Leu	Glu	Glu	Lys	Lys
145				150					155					160	
Gly	Glu	Ile	Ser	Glu	Leu	Leu	Val	Gly	Ser	Pro	Ser	Ile	Arg	Ala	Leu
			165					170					175		
Tyr	Thr	Lys	Met	Val	Pro	Ala	Ala	Val	Ser	His	Ser	Glu	Phe	Trp	His
		180						185				190			
Arg	Tyr	Phe	Tyr	Lys	Val	His	Gln	Leu	Glu	Gln	Glu	Gln	Ala	Arg	Arg

	195		200		205										
Asp	Ala	Leu	Lys	Gln	Arg	Ala	Glu	Gln	Ser	Ile	Ser	Glu	Glu	Pro	Gly
	210					215					220				
Trp	Glu	Glu	Glu	Glu	Glu	Glu	Leu	Met	Gly	Ile	Ser	Pro	Ile	Ser	Pro
225					230					235					240
Lys	Glu	Ala	Lys	Val	Pro	Val	Ala	Lys	Ile	Ser	Thr	Phe	Pro	Glu	Gly
			245						250					255	
Glu	Pro	Gly	Pro	Gln	Ser	Pro	Cys	Glu	Glu	Asn	Leu	Val	Thr	Ser	Val
			260					265					270		
Glu	Pro	Pro	Ala	Glu	Val	Thr	Pro	Ser	Glu	Ser	Ser	Glu	Ser	Ile	Ser
	275					280						285			
Leu	Val	Thr	Gln	Ile	Ala	Asn	Pro	Ala	Thr	Ala	Pro	Glu	Ala	Arg	Val
	290					295					300				
Leu	Pro	Lys	Asp	Leu	Ser	Gln	Lys	Leu	Leu	Glu	Ala	Ser	Leu	Glu	Glu
305					310					315					320
Gln	Gly	Leu	Ala	Val	Asp	Val	Gly	Glu	Thr	Gly	Pro	Ser	Pro	Pro	Ile
			325					330						335	
His	Ser	Lys	Pro	Leu	Thr	Pro	Ala	Gly	His	Thr	Gly	Gly	Pro	Glu	Pro
			340					345					350		
Arg	Pro	Pro	Ala	Arg	Val	Glu	Thr	Leu	Arg	Glu	Glu	Ala	Pro	Thr	Asp
	355					360						365			
Leu	Arg	Val	Phe	Glu	Leu	Asn	Ser	Asp	Ser	Gly	Lys	Ser	Thr	Pro	Ser
	370					375				380					
Asn	Asn	Gly	Lys	Lys	Gly	Ser	Ser	Thr	Asp	Ile	Ser	Glu	Asp	Trp	Glu
385					390					395					400
Lys	Asp	Phe	Asp	Leu	Asp	Met	Thr	Glu	Glu	Glu	Val	Gln	Met	Ala	Leu
			405					410						415	
Ser	Lys	Val	Asp	Ala	Ser	Gly	Glu	Leu	Lys	Met					
			420					425							

&lt;210&gt; 5471

&lt;211&gt; 534

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5471

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120

ttgccagggtg tggcgcacat gtgtgcccgt gggcagagta cagagacaca agcttgtgtg  
180

gacacgaatg tgtagctatg tgcgagtgcacacggagtgg tgagtgcagg gaccccaggc  
240

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300

cagagcccc ggcacccgcg tgtgtgcaaa gacacaggaa cccgtctgcg tggcgtgtg  
360

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420

gtgggggcag ccggggacag ggctgggtgt gcgtgactcg ggtgtgccgg gacccacaga  
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534

<210> 5472  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 5472  
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 35 40 45  
 Phe Leu Cys Leu Cys Thr His Ala Gly Ala Gly Gly Ser Val His Thr  
 50 55 60  
 Pro Pro Arg Leu Arg Ala Arg Pro Tyr Met Pro Cys Ala Pro Thr Gln  
 65 70 75 80  
 Ala Gly Leu Gly Ser Leu His Ser Pro Leu Arg Val His Ser His Ile  
 85 90 95  
 Ala Thr His Ser Cys Pro His Lys Leu Val Ser Leu Tyr Ser Ala His  
 100 105 110  
 Gly His Thr Cys Ala Pro His Leu Ala Thr Arg Thr Pro Gly Leu Cys  
 115 120 125  
 Ile Pro His Pro Gly Ser Gly Pro Arg Val Val Gly Pro Ala Gly Ser  
 130 135 140  
 Ala Ala Ala Ser Ala Arg Thr Val Leu Phe Leu Arg Pro Arg Gly Ala  
 145 150 155 160  
 Ala

<210> 5473  
 <211> 691  
 <212> DNA  
 <213> Homo sapiens

<400> 5473  
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 180  
 aggcagcatg aggtagaatg gcaaacctac cagggtattc tgaagaagac aagagtcatg  
 240  
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 300  
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 360  
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 420  
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 480  
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 600  
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<210> 5474

<211> 139

<212> PRT

<213> Homo sapiens

<400> 5474

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			20					25					30		
Ser	Pro	Ser	Pro	Gly	Ile	Arg	Ser	Ile	Met	Ser	Ser	Ala	Ile	Ala	Tyr
		35					40					45			
Leu	Cys	Gly	His	Leu	His	Thr	Leu	Gly	Gly	Leu	Met	Pro	Val	Leu	His
	50					55				60					
Thr	Arg	His	Phe	Gln	Gly	Thr	Leu	Glu	Leu	Glu	Val	Gly	Asp	Trp	Lys
65				70						75				80	
Asp	Asn	Arg	Arg	Tyr	Arg	Ile	Phe	Ala	Phe	Asp	His	Asp	Leu	Phe	Ser
			85						90					95	
Phe	Ala	Asp	Leu	Ile	Phe	Gly	Lys	Trp	Pro	Val	Val	Leu	Ile	Thr	Asn
			100					105					110		
Pro	Lys	Ser	Leu	Leu	Tyr	Ser	Cys	Gly	Glu	His	Glu	Pro	Leu	Glu	Arg
		115					120						125		
Leu	Leu	His	Ser	Thr	His	Ile	Arg	Leu	Val	Thr					
	130						135								

<210> 5475

<211> 628

<212> DNA

<213> Homo sapiens

<400> 5475

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 120  
 aacaaccccc acgccagcta cagcgcccct ccgccagtga gctcctccga cagcgaggcc  
 180  
 cccgaggcca accccgccga cggcagtga gctgacgagg acgatgagga ccgggggggtc  
 240  
 atggccgtca cagcggtaac cgccacagct gccagcgaca ggatggagag cgactcagac  
 300  
 tcagacaaga gtagcgacaa cagtggcctg aagaggaaga cgcctgcgct aaagatgtcg  
 360  
 gtctcgaaac gagcccgaaa ggcctccagc gacctggatc aggccagcgt gtcccatcc  
 420  
 gaagaggaga actcggaag ctcactctgag tcggagaaga ccagcgacca ggacttcaca  
 480

cctgagaaga aagcagcggt ccgggcgcca cggagggggc ctctgggggg acggaaaaaa  
 540  
 aagaaggcgc cgtcagcctc cgactccgac tccaaggccg attcggacgg ggccaagcct  
 600  
 gagccggtgg ccatggcgcg gtcggcgt  
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<210> 5476  
 <211> 209  
 <212> PRT  
 <213> Homo sapiens

<400> 5476  
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 35 40 45  
 Ala Pro Pro Pro Val Ser Ser Ser Asp Ser Glu Ala Pro Glu Ala Asn  
 50 55 60  
 Pro Ala Asp Gly Ser Asp Ala Asp Glu Asp Asp Glu Asp Arg Gly Val  
 65 70 75 80  
 Met Ala Val Thr Ala Val Thr Ala Thr Ala Ala Ser Asp Arg Met Glu  
 85 90 95  
 Ser Asp Ser Asp Ser Asp Lys Ser Ser Asp Asn Ser Gly Leu Lys Arg  
 100 105 110  
 Lys Thr Pro Ala Leu Lys Met Ser Val Ser Lys Arg Ala Arg Lys Ala  
 115 120 125  
 Ser Ser Asp Leu Asp Gln Ala Ser Val Ser Pro Ser Glu Glu Glu Asn  
 130 135 140  
 Ser Glu Ser Ser Ser Glu Ser Glu Lys Thr Ser Asp Gln Asp Phe Thr  
 145 150 155 160  
 Pro Glu Lys Lys Ala Ala Val Arg Ala Pro Arg Arg Gly Pro Leu Gly  
 165 170 175  
 Gly Arg Lys Lys Lys Lys Ala Pro Ser Ala Ser Asp Ser Asp Ser Lys  
 180 185 190  
 Ala Asp Ser Asp Gly Ala Lys Pro Glu Pro Val Ala Met Ala Arg Ser  
 195 200 205  
 Ala

<210> 5477  
 <211> 727  
 <212> DNA  
 <213> Homo sapiens

<400> 5477  
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 gggcccttct cactgagctc gtgaagtgcc tcagtcaagg caaggtcccc tgggtccatat  
 180



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 gcccttgccc agcgggggag aaaaagggtg cttctggtcc gtctgtataa aacatggccc  
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 360  
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 420  
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 720  
 gcggccg  
 727

&lt;210&gt; 5478

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5478

Ser	Ala	Ser	Val	Lys	Ala	Arg	Ser	Pro	Gly	Pro	Tyr	Gly	Pro	Pro	Arg
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Pro	Trp	Gly	Trp	Ala	Gly	Pro	Tyr	Ser	Ala	Tyr	Val	Ser	Leu	Cys	Gly
			20					25					30		
Ala	Pro	Gly	Gln	Arg	Gly	Arg	Lys	Arg	Trp	Leu	Leu	Val	Arg	Leu	Tyr
		35					40					45			
Lys	Thr	Trp	Pro	Leu	Thr	Cys	Arg	Pro	Pro	Thr	Gln	Leu	Ala	Gly	Trp
	50					55					60				
Ala	Gly	Leu	Ser	Pro	Leu	Ala	Ser	Pro	Gly	Pro	Leu	Ala	Gly	Ser	Ser
65					70				75					80	
Thr	Ser	Leu	Ser	Ala	Leu	Ser	Ala	Arg	Pro	Pro	Pro	Asp	Ser	Ser	Ser
				85				90					95		

Leu Ser Pro

&lt;210&gt; 5479

&lt;211&gt; 1386

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5479

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 120  
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 180

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 300  
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 360  
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 900  
 cttatagact gatgtctctt tggccggagc cagatctgcc cctcagtgca ttcgtgtgct  
 960  
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&lt;210&gt; 5480

&lt;211&gt; 251

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5480

Ala	Gly	Thr	Thr	Asp	Arg	Glu	Glu	Ala	Thr	Arg	Leu	Leu	Ala	Glu	Lys
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Arg	Arg	Gln	Ala	Arg	Glu	Gln	Arg	Glu	Arg	Glu	Glu	Gln	Glu	Arg	Arg
			20				25					30			
Leu	Gln	Ala	Glu	Arg	Asp	Lys	Arg	Met	Arg	Glu	Glu	Gln	Leu	Ala	Arg

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 50 55 60  
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 65 70 75 80  
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 85 90 95  
 Ala Glu Arg Gln Arg Leu Glu Arg Glu Lys His Phe Gln Gln Gln Glu  
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 Gln Glu Arg Gln Glu Arg Arg Lys Arg Leu Glu Glu Ile Met Lys Arg  
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 Thr Arg Lys Ser Glu Val Ser Glu Thr Lys Gln Lys Gln Asp Ser Lys  
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 Ser Leu Val Asn Gly Leu Gln Pro Leu Pro Ala His Gln Glu Asn Gly  
 195 200 205  
 Phe Ser Thr Asn Gly Pro Ser Gly Asp Lys Ser Leu Ser Arg Thr Pro  
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 Glu Thr Leu Leu Pro Phe Ala Glu Ala Glu Ala Phe Leu Lys Lys Ala  
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 Val Val Gln Ser Pro Gln Val Thr Glu Val Leu  
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&lt;210&gt; 5481

&lt;211&gt; 1513

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5481

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&lt;210&gt; 5482

&lt;211&gt; 188

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5482

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			20					25						30	
Leu	Arg	Asn	Pro	Ser	Ala	Ala	Phe	Phe	Cys	Val	Ala	Arg	Leu	Gln	Asp
		35					40					45			
Phe	Lys	Leu	Asp	Phe	Gly	Asn	Ser	Gln	Gly	Lys	Thr	Ser	Gln	Thr	Trp
	50					55					60				
His	Gly	Gly	Ile	Ala	Thr	Ile	Phe	Gln	Ser	Pro	Gly	Asp	Glu	Leu	Trp
65					70					75				80	
Gly	Val	Val	Trp	Lys	Met	Asn	Lys	Ser	Asn	Leu	Asn	Ser	Leu	Asp	Glu
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Gln	Glu	Gly	Val	Lys	Ser	Gly	Met	Tyr	Val	Val	Ile	Glu	Val	Lys	Val
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Ala	Thr	Gln	Glu	Gly	Lys	Glu	Ile	Thr	Cys	Arg	Ser	Tyr	Leu	Met	Thr

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720
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1140

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<210> 5484

<211> 357

<212> PRT

<213> Homo sapiens ..

<400> 5484

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			20					25					30		
Ile	Asp	Ile	Ile	Asn	Leu	Asp	Thr	Phe	Thr	Tyr	Ile	Glu	Ser	Ala	Ser
		35					40					45			
Glu	Leu	Arg	Gly	Gly	Phe	Asp	Trp	Ser	Leu	His	Phe	Gln	Trp	Glu	Gln
	50					55					60				
Leu	Ser	Pro	Glu	Gln	Lys	Ala	Arg	Arg	Leu	Asp	Pro	Thr	Glu	Pro	Ile
65					70					75				80	
Arg	Thr	Pro	Ile	Ile	Ala	Gly	Gly	Leu	Phe	Val	Ile	Asp	Lys	Ala	Trp
				85					90					95	
Phe	Asp	Tyr	Leu	Gly	Lys	Tyr	Asp	Met	Asp	Met	Asp	Ile	Trp	Gly	Gly
			100					105					110		
Glu	Asn	Phe	Glu	Ile	Ser	Phe	Arg	Val	Trp	Met	Cys	Gly	Gly	Ser	Leu
		115					120					125			
Glu	Ile	Val	Pro	Cys	Ser	Arg	Val	Gly	His	Val	Phe	Arg	Lys	Lys	His
	130						135					140			
Pro	Tyr	Val	Phe	Pro	Asp	Gly	Asn	Ala	Asn	Thr	Tyr	Ile	Lys	Asn	Thr
145					150					155				160	
Lys	Arg	Thr	Ala	Glu	Val	Trp	Met	Asp	Glu	Tyr	Lys	Gln	Tyr	Tyr	Tyr
			165					170					175		
Ala	Ala	Arg	Pro	Phe	Ala	Leu	Glu	Arg	Pro	Phe	Gly	Asn	Val	Glu	Ser
		180						185					190		
Arg	Leu	Asp	Leu	Arg	Lys	Asn	Leu	Arg	Cys	Gln	Ser	Phe	Lys	Trp	Tyr
	195						200					205			
Leu	Glu	Asn	Ile	Tyr	Pro	Glu	Leu	Ser	Ile	Pro	Lys	Glu	Phe	Ser	Ile
	210					215					220				
Gln	Lys	Gly	Asn	Ile	Arg	Gln	Arg	Gln	Lys	Cys	Leu	Glu	Ser	Gln	Arg
225					230					235				240	
Gln	Asn	Asn	Gln	Glu	Thr	Pro	Asn	Leu	Lys	Leu	Ser	Pro	Cys	Ala	Lys
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<210> 5485
<211> 1549
<212> DNA
<213> Homo sapiens
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 1320  
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<210> 5486

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5486

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Asp	Ser	Pro	Ser	Thr	Ser	Arg	Ser	Gly	Gly	Ser	Ser	Arg	Leu	Ser	Ser
			20					25					30		
Arg	Ser	Arg	Ser	Arg	Ser	Phe	Ser	Arg	Ser	Ser	Arg	Ser	His	Ser	Arg
			35				40					45			
Val	Ser	Ser	Arg	Phe	Ser	Ser	Arg	Ser	Arg	Arg	Ser	Lys	Ser	Arg	Ser
	50					55					60				
Arg	Ser	Arg	Arg	Arg	His	Gln	Arg	Lys	Tyr	Arg	Arg	Tyr	Ser	Arg	Ser
65					70					75				80	
Tyr	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Arg	Tyr	Arg	Glu	Arg
			85					90						95	
Arg	Tyr	Gly	Phe	Thr	Arg	Arg	Tyr	Tyr	Arg	Ser	Pro	Ser	Arg	Tyr	Arg
			100					105					110		
Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Gly	Arg	Ser	Tyr	Cys	Gly
			115				120					125			
Arg	Ala	Tyr	Ala	Ile	Ala	Arg	Gly	Gln	Arg	Tyr	Tyr	Gly	Phe	Gly	Arg
	130					135						140			
Thr	Val	Tyr	Pro	Glu	Glu	His	Ser	Arg	Trp	Arg	Asp	Arg	Ser	Arg	Thr
145					150					155				160	
Arg	Ser	Arg	Ser	Arg	Thr	Pro	Phe	Arg	Leu	Ser	Glu	Lys	Asp	Arg	Met
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Glu	Leu	Leu	Glu	Ile	Ala	Lys	Thr	Asn	Ala	Ala	Lys	Ala	Leu	Gly	Thr
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225					230					235					240
Pro	Thr	Gln	Gln	Arg	Ser	Ile	Ala	Phe	Ser	Ser	Asn	Asn	Ser	Val	Ala
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Lys	Pro	Ile	Gln	Lys	Ser	Ala	Lys	Ala	Ala	Thr	Glu	Glu	Ala	Ser	Ser
			260					265					270		
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Pro	Ile														
	290														

&lt;210&gt; 5487

&lt;211&gt; 1716

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5487

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<210> 5488

<211> 272

<212> PRT

<213> Homo sapiens

<400> 5488

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			20					25					30		
Gly	Phe	Trp	Arg	Pro	Leu	Arg	Gly	Val	Asn	Val	Met	Ile	Met	Gly	Ala
		35					40					45			
Gly	Pro	Ala	His	Ala	Met	Tyr	Phe	Ala	Cys	Tyr	Glu	Asn	Met	Lys	Arg
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Thr	Leu	Asn	Asp	Val	Phe	His	His	Gln	Gly	Asn	Ser	His	Leu	Ala	Asn
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Gly	Ile	Ala	Gly	Ser	Met	Ala	Thr	Leu	Leu	His	Asp	Ala	Val	Met	Asn
				85					90					95	
Pro	Ala	Glu	Val	Val	Lys	Gln	Arg	Leu	Gln	Met	Tyr	Asn	Ser	Gln	His
			100					105					110		
Arg	Ser	Ala	Ile	Ser	Cys	Ile	Arg	Thr	Val	Trp	Arg	Thr	Glu	Gly	Leu
	115						120					125			
Gly	Ala	Phe	Tyr	Arg	Ser	Tyr	Thr	Thr	Gln	Leu	Thr	Met	Asn	Ile	Pro
	130					135						140			
Phe	Gln	Ser	Ile	His	Phe	Ile	Thr	Tyr	Glu	Phe	Leu	Gln	Glu	Gln	Val
145					150					155					160
Asn	Pro	His	Arg	Thr	Tyr	Asn	Pro	Gln	Ser	His	Ile	Ile	Ser	Gly	Gly
				165					170					175	
Leu	Ala	Gly	Ala	Leu	Ala	Ala	Ala	Ala	Thr	Thr	Pro	Leu	Asp	Val	Cys
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Lys	Thr	Leu	Leu	Asn	Thr	Gln	Glu	Asn	Val	Ala	Leu	Ser	Leu	Ala	Asn
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Ile	Ser	Gly	Arg	Leu	Ser	Gly	Met	Ala	Asn	Ala	Phe	Arg	Thr	Val	Tyr

210	215	220	
Gln Leu Asn Gly Leu Ala Gly Tyr Phe Lys Gly Ile Gln Ala Arg Val			
225	230	235	240
Ile Tyr Gln Met Pro Ser Thr Ala Ile Ser Trp Ser Val Tyr Glu Phe			
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	260	265	270

&lt;210&gt; 5489

&lt;211&gt; 1600

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5489

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&lt;210&gt; 5490

&lt;211&gt; 357

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5490

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Leu	Leu	Val	Ala	Thr	Ser	Val	Ala	Glu	Glu	Gly	Leu	Asp	Ile	Pro	His
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Cys	Asn	Val	Val	Val	Arg	Tyr	Gly	Leu	Leu	Thr	Asn	Glu	Ile	Ser	Met
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Val	Asn	Val	Asn	Pro	Asn	Phe	Ser	Asn	Tyr	Tyr	Asn	Val	Ser	Arg	Asp

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&lt;210&gt; 5491

&lt;211&gt; 5555

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5491

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&lt;210&gt; 5492

&lt;211&gt; 602

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5492

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      515              520              525
Leu Lys Ser Lys Ser Thr Arg Lys Pro Leu Ala Cys Ile Ile Gly Tyr
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Leu Asp Glu Leu Thr Cys Cys Val Ser Asp
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&lt;210&gt; 5493

&lt;211&gt; 6538

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5493

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1920  
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2040

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<210> 5496

<211> 345

<212> PRT

<213> Homo sapiens

<400> 5496

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			20					25					30		
Leu	Leu	Gly	Ser	Met	Ala	Leu	Ser	Asn	His	Tyr	Arg	Ser	Glu	Asp	Leu
		35					40					45			
Leu	Asp	Val	Asp	Thr	Ala	Ala	Gly	Gly	Phe	Gln	Gln	Arg	Gln	Gly	Leu
	50					55					60				
Lys	Tyr	Cys	Leu	Pro	Leu	Thr	Phe	Cys	Ile	His	Thr	Gly	Leu	Ser	Gln
65					70					75					80
Tyr	Ile	Ala	Val	Glu	Ala	Ala	Glu	Gly	Arg	Asn	Lys	Asn	Glu	Val	Phe
				85					90					95	
Tyr	Gln	Cys	Pro	Asp	Gln	Met	Ala	Arg	Asn	Pro	Ala	Ala	Ile	Asp	Met
			100					105					110		
Phe	Ile	Ile	Gly	Ala	Thr	Phe	Thr	Asp	Trp	Phe	Thr	Ser	Tyr	Val	Lys
		115					120					125			
Asn	Val	Val	Ser	Gly	Gly	Phe	Pro	Ile	Ile	Arg	Asp	Gln	Ile	Phe	Arg
		130				135					140				
Tyr	Val	His	Asp	Pro	Glu	Cys	Val	Ala	Thr	Thr	Gly	Asp	Ile	Thr	Val
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Ser	Val	Ser	Thr	Ser	Phe	Leu	Pro	Glu	Leu	Ser	Ser	Val	His	Pro	Pro
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His	Tyr	Phe	Phe	Thr	Tyr	Arg	Ile	Arg	Ile	Glu	Met	Ser	Lys	Asp	Ala
			180					185					190		
Leu	Pro	Glu	Lys	Ala	Cys	Gln	Leu	Asp	Ser	Arg	Tyr	Trp	Arg	Ile	Thr
		195					200					205			
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	210					215					220				
Glu	Phe	Pro	Ile	Ile	Ser	Pro	Gly	Arg	Val	Tyr	Glu	Tyr	Thr	Ser	Cys
225					230					235					240
Thr	Thr	Phe	Ser	Thr	Thr	Ser	Gly	Tyr	Met	Glu	Gly	Tyr	Tyr	Thr	Phe
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<210> 5497
<211> 1056
<212> DNA
<213> Homo sapiens
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4678



<210> 5498  
 <211> 150  
 <212> PRT  
 <213> Homo sapiens

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 Ala Gln Leu Trp Trp Ser Ser Pro Phe Ile His Ser Pro Gly Glu Thr  
 35 40 45  
 Asn Ile Pro His Thr Leu Thr Glu Pro His Ser Val Pro Gly Trp Cys  
 50 55 60  
 Trp Asp Thr Leu Arg Arg His Gly Ala Gly Gln Gly His Pro Gly Met  
 65 70 75 80  
 Ala Arg Ser Gly Thr Gly Glu Gly Gln Arg Glu Gly Asp Ile Glu Arg  
 85 90 95  
 Glu Glu Asp Glu Glu Glu Gly Asn Arg Ser Arg Lys Ser Arg Asp Ser  
 100 105 110  
 Arg Ser Gln Val Lys Gly Leu Pro Leu His Ser Arg Glu Gln Arg Asp  
 115 120 125  
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<210> 5499  
 <211> 1918  
 <212> DNA  
 <213> Homo sapiens

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ctaaggtgga caacaaacaa aaaacatcat gtcttagaaa cagaaaagac ccctaaggac  
720  
tgggtgcgtc agcaccgtaa agaggagaaa atgaagagcc ataagttaga agaagaattt  
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1918

&lt;210&gt; 5500

&lt;211&gt; 426

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5500

Met	Ser	Pro	Ala	Phe	Arg	Ala	Met	Asp	Val	Glu	Pro	Arg	Ala	Lys	Gly
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			20					25					30			
Leu	Arg	Phe	Asn	Glu	Thr	Thr	Leu	Cys	Lys	Pro	Leu	Val	Pro	Arg	Glu	
		35						40				45				
His	Gln	Phe	Tyr	Glu	Thr	Leu	Pro	Ala	Glu	Met	Arg	Lys	Phe	Thr	Pro	
	50					55					60					
Gln	Tyr	Lys	Gly	Val	Val	Ser	Val	Arg	Phe	Glu	Glu	Asp	Glu	Asp	Arg	
65					70					75					80	
Asn	Leu	Cys	Leu	Ile	Ala	Tyr	Pro	Leu	Lys	Gly	Asp	His	Gly	Ile	Val	
			85						90					95		
Asp	Ile	Ala	His	Asn	Ser	Asp	Cys	Glu	Pro	Lys	Ser	Lys	Leu	Leu	Arg	
		100						105					110			
Trp	Thr	Thr	Asn	Lys	Lys	His	His	Val	Leu	Glu	Thr	Glu	Lys	Thr	Pro	
		115						120				125				
Lys	Asp	Trp	Val	Arg	Gln	His	Arg	Lys	Glu	Glu	Lys	Met	Lys	Ser	His	
	130					135					140					
Lys	Leu	Glu	Glu	Glu	Phe	Glu	Trp	Leu	Lys	Lys	Ser	Glu	Val	Leu	Tyr	
145					150					155					160	
Tyr	Thr	Val	Glu	Lys	Lys	Gly	Asn	Ile	Ser	Ser	Gln	Leu	Lys	His	Tyr	
				165					170					175		
Asn	Pro	Trp	Ser	Met	Lys	Cys	His	Gln	Gln	Gln	Leu	Gln	Arg	Met	Lys	
			180					185					190			
Glu	Asn	Ala	Lys	His	Arg	Asn	Gln	Tyr	Lys	Phe	Ile	Leu	Leu	Glu	Asn	
		195					200					205				
Leu	Thr	Ser	Arg	Tyr	Glu	Val	Pro	Cys	Val	Leu	Asp	Leu	Lys	Met	Gly	
	210					215					220					
Thr	Arg	Gln	His	Gly	Asp	Asp	Ala	Ser	Glu	Glu	Lys	Ala	Ala	Asn	Gln	
225					230					235					240	
Ile	Arg	Lys	Cys	Gln	Gln	Ser	Thr	Ser	Ala	Val	Ile	Gly	Val	Xaa	Val	
				245					250					255		
Cys	Gly	Met	Gln	Val	Tyr	Gln	Ala	Gly	Ser	Gly	Gln	Leu	Met	Phe	Met	
			260					265					270			
Asn	Lys	Tyr	His	Gly	Arg	Lys	Leu	Ser	Val	Gln	Gly	Phe	Lys	Glu	Ala	
		275					280					285				
Leu	Phe	Gln	Phe	Phe	His	Asn	Gly	Arg	Tyr	Leu	Arg	Arg	Glu	Leu	Leu	
	290					295					300					
Gly	Pro	Val	Leu	Lys	Lys	Leu	Thr	Glu	Leu	Lys	Ala	Val	Leu	Glu	Arg	
305					310					315					320	
Gln	Glu	Ser	Tyr	Arg	Phe	Tyr	Ser	Ser	Ser	Leu	Leu	Val	Ile	Tyr	Asp	
				325					330					335		
Gly	Lys	Glu	Arg	Pro	Glu	Val	Val	Leu	Asp	Ser	Asp	Ala	Glu	Asp	Leu	
			340					345					350			
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<210> 5501

<211> 568

<212> DNA

<213> Homo sapiens

<400> 5501

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180  
gcaggtcttg gcacatgcac agcaggctcc ccatagcttt gtcaccacaa agggcactgt  
240  
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568

<210> 5502

<211> 110

<212> PRT

<213> Homo sapiens

<400> 5502

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Glu	Ala	Gly	Thr	Lys	Pro	Cys	Ser	Ser	Glu	Val	Pro	Val	Gly	Ala	Gly
			20					25					30		
Gly	Ala	Ala	Leu	Gln	Val	Leu	Ala	His	Ala	Gln	Gln	Ala	Pro	His	Ser
		35					40				45				
Phe	Val	Thr	Thr	Lys	Gly	Thr	Val	Leu	Phe	Thr	Ala	Pro	Pro	Ala	Ser
	50					55					60				
Ala	Trp	Gln	Leu	Cys	Leu	Pro	Val	Leu	Tyr	Leu	Ile	Pro	Pro	Ala	Lys
65				70					75					80	
Leu	Ala	Arg	Gln	Gly	Pro	Ala	Leu	Lys	Glu	Ile	Ser	Leu	Pro	Asp	Pro
			85						90					95	
Trp	Thr	Trp	Lys	Trp	Arg	Leu	His	Val	Pro	Ala	Leu	Ala	Ala		
			100					105					110		

<210> 5503

<211> 1679

<212> DNA

<213> Homo sapiens

<400> 5503

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240  
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300  
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360  
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420  
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1679

<210> 5504  
 <211> 392  
 <212> PRT  
 <213> Homo sapiens

<400> 5504  
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 Ser Gly Glu Ala Thr Gly Ala Asp Ala Gly Arg Leu Cys Pro Pro Pro  
 50 55 60  
 Arg Ser Arg Ala Pro His Lys Asp Arg Thr Leu Ala Arg Ser Arg Pro  
 65 70 75 80  
 Gln Thr Gln Gly Glu Asp Cys Ser Leu Pro Val Gly Glu Val Lys Ile  
 85 90 95  
 Gly Lys Arg Ser Tyr Ser Pro Ala Pro Gly Lys Gln Lys Lys Pro Asn  
 100 105 110  
 Ala Met Gly Leu Ala Pro Thr Ser Ser Pro Gly Ala Pro Asn Ser Ala  
 115 120 125  
 Arg Ala Thr His Asn Pro Val Pro Cys Gly Ser Gly Arg Gly Pro Cys  
 130 135 140  
 His Leu Ala Asn Leu Leu Ser Thr Leu Ala Gln Ser Asn Gln Asn Arg  
 145 150 155 160  
 Asp His Lys Gln Gly Pro Pro Glu Val Thr Cys Gln Ile Arg Lys Lys  
 165 170 175  
 Thr Arg Thr Leu Tyr Arg Ser Asp Gln Leu Glu Glu Leu Glu Lys Ile  
 180 185 190  
 Phe Gln Glu Asp His Tyr Pro Asp Ser Asp Lys Arg Arg Glu Ile Ala  
 195 200 205  
 Gln Thr Val Gly Val Thr Pro Gln Arg Ile Met Val Lys Gly Ala Gly  
 210 215 220  
 Ser Leu Val Ala Gly Trp Ser Gly Gly Gly Pro Thr Ile Glu Thr Leu  
 225 230 235 240  
 Glu Leu Gln Ser Glu Arg Ser Ala Val Ala Trp Val Trp Phe Gln Asn  
 245 250 255  
 Arg Arg Ala Lys Trp Arg Lys Met Glu Lys Leu Asn Gly Lys Glu Ser  
 260 265 270  
 Lys Asp Asn Pro Ala Ala Pro Gly Pro Ala Ser Ser Gln Cys Ser Ser  
 275 280 285  
 Ala Ala Glu Ile Leu Pro Ala Val Pro Met Glu Pro Lys Pro Asp Pro  
 290 295 300  
 Phe Pro Gln Glu Ser Pro Leu Asp Thr Phe Pro Glu Pro Pro Met Leu  
 305 310 315 320  
 Leu Thr Ser Asp Gln Thr Leu Ala Pro Thr Gln Pro Ser Glu Gly Ala  
 325 330 335  
 Gln Arg Val Val Thr Pro Pro Leu Phe Ser Pro Pro Pro Val Arg Arg  
 340 345 350  
 Ala Asp Leu Pro Phe Pro Leu Gly Pro Val His Thr Pro Gln Leu Met  
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370 375 380  
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<210> 5505  
<211> 1099  
<212> DNA  
<213> Homo sapiens

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960  
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1080  
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1099

<210> 5506  
<211> 280  
<212> PRT  
<213> Homo sapiens



&lt;400&gt; 5506

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 Glu Leu Pro Glu Asn Ile Leu Leu Glu Leu Phe Thr His Val Pro Ala  
 35 40 45  
 Arg Gln Leu Leu Leu Asn Cys Arg Leu Val Cys Ser Leu Trp Arg Asp  
 50 55 60  
 Leu Ile Asp Leu Val Thr Leu Trp Lys Arg Lys Cys Leu Arg Glu Gly  
 65 70 75 80  
 Phe Ile Thr Glu Asp Trp Asp Gln Pro Val Ala Asp Trp Lys Ile Phe  
 85 90 95  
 Tyr Phe Leu Arg Ser Leu His Arg Asn Leu Leu His Asn Pro Cys Ala  
 100 105 110  
 Glu Glu Gly Phe Glu Phe Trp Ser Leu Asp Val Asn Gly Gly Asp Glu  
 115 120 125  
 Trp Lys Val Glu Asp Leu Ser Arg Asp Gln Arg Lys Glu Phe Pro Asn  
 130 135 140  
 Asp Gln Val Lys Lys Tyr Phe Val Thr Ser Tyr Tyr Thr Cys Leu Lys  
 145 150 155 160  
 Ser Gln Val Val Asp Leu Lys Ala Glu Gly Tyr Trp Glu Glu Leu Leu  
 165 170 175  
 Asp Thr Phe Arg Pro Asp Ile Val Val Lys Asp Trp Phe Ala Ala Arg  
 180 185 190  
 Ala Asp Cys Gly Cys Thr Tyr Gln Leu Lys Val Gln Leu Leu Ser Ala  
 195 200 205  
 Asp Tyr Phe Val Leu Ala Ser Phe Glu Pro Asp Pro Ala Thr Ile Gln  
 210 215 220  
 Gln Lys Ser Asp Ala Lys Trp Arg Glu Val Ser His Thr Phe Ser Asn  
 225 230 235 240  
 Tyr Pro Pro Gly Val Arg Tyr Ile Trp Phe Gln His Gly Gly Val Asp  
 245 250 255  
 Thr His Tyr Trp Ala Gly Trp Tyr Gly Pro Arg Val Thr Asn Ser Ser  
 260 265 270  
 Ile Thr Ile Gly Pro Pro Leu Pro  
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&lt;210&gt; 5507

&lt;211&gt; 1658

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5507

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1658

&lt;210&gt; 5508

&lt;211&gt; 448

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5508

Xaa Leu Glu Ser Gln Gly Ile Glu Leu Asn Pro Pro Glu Lys Met Ala

1		5		10		15									
Leu	Asp	Pro	Tyr	Thr	Glu	Leu	Arg	Lys	Gln	Pro	Leu	Arg	Lys	Tyr	Val
		20						25					30		
Thr	Pro	Ser	Asp	Phe	Asp	Gln	Leu	Lys	Gln	Phe	Leu	Thr	Phe	Asp	Lys
		35					40					45			
Gln	Val	Leu	Arg	Phe	Tyr	Ala	Ile	Trp	Asp	Asp	Thr	Asp	Ser	Met	Tyr
	50					55					60				
Gly	Glu	Cys	Arg	Thr	Tyr	Ile	Ile	His	Tyr	Tyr	Leu	Met	Asp	Asp	Thr
65					70				75					80	
Val	Glu	Ile	Arg	Glu	Val	His	Glu	Arg	Asn	Asp	Gly	Arg	Asp	Pro	Phe
			85					90					95		
Pro	Leu	Leu	Met	Asn	Arg	Gln	Arg	Val	Pro	Lys	Val	Leu	Val	Glu	Asn
		100					105					110			
Ala	Lys	Asn	Phe	Pro	Gln	Cys	Val	Leu	Glu	Ile	Ser	Asp	Gln	Glu	Val
	115						120					125			
Leu	Glu	Trp	Tyr	Thr	Ala	Lys	Asp	Phe	Ile	Val	Gly	Lys	Ser	Leu	Thr
	130					135					140				
Ile	Leu	Gly	Arg	Thr	Phe	Phe	Ile	Tyr	Asp	Cys	Asp	Pro	Phe	Thr	Arg
145					150				155					160	
Arg	Tyr	Tyr	Lys	Glu	Lys	Phe	Gly	Ile	Thr	Asp	Leu	Pro	Arg	Ile	Asp
			165					170					175		
Val	Ser	Lys	Arg	Glu	Pro	Pro	Pro	Val	Lys	Gln	Glu	Leu	Pro	Pro	Tyr
		180					185					190			
Asn	Gly	Phe	Gly	Leu	Val	Glu	Asp	Ser	Ala	Gln	Asn	Cys	Phe	Ala	Leu
	195						200				205				
Ile	Pro	Lys	Ala	Pro	Lys	Lys	Asp	Val	Ile	Lys	Met	Leu	Val	Asn	Asp
	210				215				220						
Asn	Lys	Val	Leu	Arg	Tyr	Leu	Ala	Val	Leu	Glu	Ser	Pro	Ile	Pro	Glu
225					230				235					240	
Asp	Lys	Asp	Arg	Arg	Phe	Val	Phe	Ser	Tyr	Phe	Leu	Ala	Thr	Asp	Met
			245					250				255			
Ile	Ser	Ile	Phe	Glu	Pro	Pro	Val	Arg	Asn	Ser	Gly	Ile	Ile	Gly	Gly
		260					265					270			
Lys	Tyr	Leu	Gly	Arg	Thr	Lys	Val	Val	Lys	Pro	Tyr	Ser	Thr	Val	Asp
	275						280					285			
Asn	Pro	Val	Tyr	Tyr	Gly	Pro	Ser	Asp	Phe	Phe	Ile	Gly	Ala	Val	Ile
	290				295						300				
Glu	Val	Phe	Gly	His	Arg	Phe	Ile	Ile	Leu	Asp	Thr	Asp	Glu	Tyr	Val
305					310				315					320	
Leu	Lys	Tyr	Met	Glu	Ser	Asn	Ala	Ala	Gln	Tyr	Ser	Pro	Glu	Ala	Leu
			325					330					335		
Ala	Ser	Ile	Gln	Asn	His	Val	Arg	Lys	Arg	Glu	Ala	Pro	Ala	Pro	Glu
		340					345					350			
Ala	Glu	Ser	Lys	Gln	Thr	Glu	Lys	Asp	Pro	Gly	Val	Gln	Glu	Leu	Glu
	355					360					365				
Ala	Leu	Ile	Asp	Thr	Ile	Gln	Lys	Gln	Leu	Lys	Asp	His	Ser	Cys	Lys
	370				375						380				
Asp	Asn	Ile	Arg	Glu	Ala	Phe	Gln	Ile	Tyr	Asp	Lys	Glu	Ala	Ser	Gly
385					390				395					400	
Tyr	Val	Asp	Arg	Asp	Met	Phe	Phe	Lys	Ile	Cys	Glu	Ser	Leu	Asn	Val
			405					410				415			
Pro	Val	Asp	Asp	Ser	Leu	Val	Lys	Glu	Leu	Ile	Arg	Met	Cys	Ser	His
		420					425					430			
Gly	Glu	Gly	Lys	Ile	Asn	Tyr	Tyr	Asn	Phe	Val	Arg	Ala	Phe	Ser	Asn

435

440

445

<210> 5509  
 <211> 818  
 <212> DNA  
 <213> Homo sapiens

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 120  
 ctatgtgaga ggaagtaagt atacacagcg taagaggtgt gataaccaag tcatagaaga  
 180  
 aatgtttgga gaacatggaa tcatgtgaac ttattatgtg gtaagtacag ataccaggg  
 240  
 ctgtcagtct caccatcctt ttctacacat gtggatgctt caggactcca gcctttgagg  
 300  
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 360  
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 420  
 gtgtgtggag aggtcggcgt gggctatcca tccactgaaa ggcacatcag agatcgctt  
 480  
 ggacgcaaac cctgtgaata tcaggaatgt agacagaagg catatacatg taagccatgt  
 540  
 gggaatgcct ttcgttttca ccactccttt cacatacacg aaaggcctca cagtggagaa  
 600  
 aacctctatg aatgttagga atttcagaaa acattcactt ccccccaaa cttcaaaga  
 660  
 tgtgaaaatg catagtggag atggacctta caaatgcaag gtgggtagga aaacctttga  
 720  
 ctctcccagt tcatttcgaa tacatggaag atctcattct ggagagaaac ccaatgtgtg  
 780  
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 818

<210> 5510  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 5510  
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 Ala Phe Ser Gln Ile Pro Gly His Asn Leu Asn Lys Lys Thr Pro Pro  
 20 25 30  
 Gly Val Lys Pro Pro Glu Ser His Val Cys Gly Glu Val Gly Val Gly  
 35 40 45  
 Tyr Pro Ser Thr Glu Arg His Ile Arg Asp Arg Leu Gly Arg Lys Pro  
 50 55 60  
 Cys Glu Tyr Gln Glu Cys Arg Gln Lys Ala Tyr Thr Cys Lys Pro Cys  
 65 70 75 80  
 Gly Asn Ala Phe Arg Phe His His Ser Phe His Ile His Glu Arg Pro

85 90 95  
 His Ser Gly Glu Asn Leu Tyr Glu Cys  
 100 105

<210> 5511  
 <211> 379  
 <212> DNA  
 <213> Homo sapiens

<400> 5511  
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 120  
 ctctgctgag ttgctgagag tctgtgttcc tctctccact tataggatgg gtcctcatct  
 180  
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 240  
 atgctgaatt cctctatggc agagatggga ggagaggctc cacgctgggc ctccctcagcc  
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 379

<210> 5512  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 5512  
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 20 25 30  
 Val Ser Ala Leu Gly Leu Glu Ala Gln Glu Asp Glu Asp Pro Ser Tyr  
 35 40 45  
 Lys Trp Arg Glu Glu His Arg Leu Ser Ala Thr Gln Gln Ser Glu Leu  
 50 55 60  
 Arg Asp Val Cys Asp Tyr Ala Ile Glu Thr Met Pro Ser Phe Pro Lys  
 65 70 75 80  
 Glu Gly Ser Ala Asp Val Glu Pro Asn Gln Glu Ser Leu Val Ala Glu  
 85 90 95  
 Ala Cys Asp Thr Pro  
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<210> 5513  
 <211> 837  
 <212> DNA  
 <213> Homo sapiens

<400> 5513  
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120  
agactcgggg agccattgac catcgtctct gaggatggag actggtggac ggtgctgtct  
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gaagtctcag gcagagagta taacatcccc agcgtccacg tggccaaagt ctcccatggg  
240  
tggctgtatg agggcctgag cagggagaaa gcagaggacc tgctgttggt acctgggaac  
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cctggagggg ccttcctcat ccgggagagc cagaccagga gaggtcttta ctctctgtca  
360  
gtccgcctca gccgcctgc atcctgggac cggatcagac actacaggat ccaactgcctt  
420  
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480  
gaccattact ctgagctggc ggatgacatc tgctgcctac tcaaggagcc ctgtgtcctg  
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720  
gaggctgtct ctttgatga tgcctaggcc caaaggagag gccaaaaggg aaaccaaggc  
780  
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837

&lt;210&gt; 5514

&lt;211&gt; 248

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5514

Xaa	Ser	Leu	Ser	Ser	Ser	Val	Gln	Gly	Gln	Gly	Pro	Val	Thr	Met	Glu
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Ala	Glu	Arg	Ser	Lys	Ala	Thr	Ala	Ala	Ala	Leu	Gly	Ser	Phe	Pro	Ala
			20					25					30		
Gly	Gly	Pro	Ala	Glu	Leu	Ser	Leu	Arg	Leu	Gly	Glu	Pro	Leu	Thr	Ile
		35					40					45			
Val	Ser	Glu	Asp	Gly	Asp	Trp	Trp	Thr	Val	Leu	Ser	Glu	Val	Ser	Gly
	50					55					60				
Arg	Glu	Tyr	Asn	Ile	Pro	Ser	Val	His	Val	Ala	Lys	Val	Ser	His	Gly
65				70						75				80	
Trp	Leu	Tyr	Glu	Gly	Leu	Ser	Arg	Glu	Lys	Ala	Glu	Asp	Leu	Leu	Leu
			85						90				95		
Leu	Pro	Gly	Asn	Pro	Gly	Gly	Ala	Phe	Leu	Ile	Arg	Glu	Ser	Gln	Thr
		100					105						110		
Arg	Arg	Gly	Ser	Tyr	Ser	Leu	Ser	Val	Arg	Leu	Ser	Arg	Pro	Ala	Ser
	115					120						125			
Trp	Asp	Arg	Ile	Arg	His	Tyr	Arg	Ile	His	Cys	Leu	Asp	Asn	Gly	Trp
	130					135				140					
Leu	Tyr	Ile	Ser	Pro	Arg	Leu	Thr	Phe	Pro	Ser	Leu	Gln	Ala	Leu	Val
145				150					155					160	
Asp	His	Tyr	Ser	Glu	Leu	Ala	Asp	Asp	Ile	Cys	Cys	Leu	Leu	Lys	Glu

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                165                170                175
Pro Cys Val Leu Gln Arg Ala Gly Pro Leu Pro Gly Lys Asp Ile Pro
                180                185                190
Leu Pro Val Thr Val Gln Arg Thr Pro Leu Asn Trp Lys Glu Leu Asp
                195                200                205
Ser Ser Leu Leu Phe Ser Glu Ala Ala Thr Gly Glu Glu Ser Leu Leu
                210                215                220
Ser Glu Gly Leu Arg Glu Ser Leu Ser Phe Tyr Ile Ser Leu Asn Asp
225                230                235                240
Glu Ala Val Ser Leu Asp Asp Ala
                245

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<210> 5515  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

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<400> 5515
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120
aagcttcagc tacaagccct tgagcaagag cacaagaagc tggctgcccg ccttgaggaa
180
gagcgtggca agaacaagca ggtggctcctg atgctgggtca aagagtgcaa gcagctctca
240
agcaaagtca tagaggaggc ccagaagctc gaagacgtaa tggccaaact ggcttcttct
300
ctttgtcacc agcacctgct tcatagtctc tctggagtgc caggaacggg tcatatagat
360
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420

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<210> 5516  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

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<400> 5516
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Lys Lys Met Gln Glu Arg Met Ser Ala Gln Leu Ala Ala Ala Glu Ser
20        25        30
Arg Gln Lys Lys Leu Glu Met Glu Lys Leu Gln Leu Gln Ala Leu Glu
35        40        45
Gln Glu His Lys Lys Leu Ala Ala Arg Leu Glu Glu Glu Arg Gly Lys
50        55        60
Asn Lys Gln Val Val Leu Met Leu Val Lys Glu Cys Lys Gln Leu Ser
65        70        75        80
Ser Lys Val Ile Glu Glu Ala Gln Lys Leu Glu Asp Val Met Ala Lys
85        90        95
Leu Ala Ser Ser Leu Cys His Gln His Leu Leu His Ser Leu Ser Gly
100       105       110
Val Pro Gly Thr Gly His Ile Asp

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115

120

<210> 5517  
 <211> 804  
 <212> DNA  
 <213> Homo sapiens

<400> 5517  
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 180  
 caaccaacac atggtgacat ggtgattgtg ccaacttggt gctcagttat atgcagggcc  
 240  
 agtgattggg ttaagtgaag accatgggtg agatcatttg tctttggctc aatagaattt  
 300  
 gagctagtag aatttgagtc tccagggaaa gagctacttg accaaattaa actagtagca  
 360  
 ggtagagcat gaatgacagc atattatacc atcaagatgt tcttagagca gtgtatggat  
 420  
 ggatcgattg tactgccatc agttgtgact gacgttgat tcaaggagaa agagaaactt  
 480  
 gtttagaaa cactttgaaa gttttttgag tacgggggtg ccctgtatca ccccgttatg  
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 600  
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 660  
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 gacacttgaa cattaacat cctgaagaat tttggaatga caggttacia gtgaacataa  
 780  
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 804

<210> 5518  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 5518  
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 Glu Leu Ser Ser Val Leu Tyr Cys Cys Asp Leu Leu Ile Gly Ile Gly  
 20 25 30  
 Ile Val Val Gly Ser Ser Asp Arg Ile Arg Ala Ser Ser Leu Gln Val  
 35 40 45  
 Gln Lys Gln Phe Lys Thr Leu Met Ile Ala Leu Gln Gln Pro Thr His  
 50 55 60  
 Gly Asp Met Val Ile Val Pro Thr Cys Cys Ser Val Ile Cys Arg Ala  
 65 70 75 80  
 Ser Asp Trp Phe Lys

85

<210> 5519  
<211> 401  
<212> DNA  
<213> Homo sapiens

<400> 5519  
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tccttcgcat aacttggtaca ggggtaggta gcataaaaga cagccgggtct caagaagcaa  
120  
ccatgcgcct cactacttac catgttcttg cgggcattcc cctcccgaag ggagtctctg  
180  
aaaacaaaca cacacagaag ttggcgctgg gcaccacatt ctctcttga cctaaccatc  
240  
aggaatttgc tgtgccatct gttcataaaa cttagccagg cccagaaagc ttgtcccaac  
300  
cacatgctaa gagccaagca gatggaacag aagctcccc aagctgctgg ctcccactat  
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ggctgggatg aagcaagaac ctgggcccac acaggctgca a  
401

<210> 5520  
<211> 101  
<212> PRT  
<213> Homo sapiens

<400> 5520  
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20 25 30  
Gln Arg Gln Leu Leu Cys Val Phe Val Phe Arg Asp Ser Leu Arg Glu  
35 40 45  
Gly Asn Ala Arg Arg Asn Met Val Ser Ser Glu Ala His Gly Cys Phe  
50 55 60  
Leu Arg Pro Ala Val Phe Tyr Ala Thr Tyr Pro Cys Thr Ser Tyr Ala  
65 70 75 80  
Lys Glu Thr Lys Pro Ser Ala Cys Leu Phe Pro Leu Leu Ile Ile Gly  
85 90 95  
Lys Trp Met Leu Trp  
100

<210> 5521  
<211> 2524  
<212> DNA  
<213> Homo sapiens

<400> 5521  
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120

acagacgcat cgtttctttt ttaatactcc ctaagaaagg gaataacctt caagctggcg  
180  
ggagcaatgg ttcacataaa gaaaggcgag ctgacccagg aggagaagga gctactggaa  
240  
gtcatcggga aagggtactgt ccaagaagct ggaacattat tatccagcaa gaatgttcgt  
300  
gtcaactgtt tggacgagaa tggaaatgact cctctaatagc atgcagcata taaaggaaaa  
360  
ctcgatatgt gcaaattact actgcgacat ggagccgatg taaattgtca tcagcatgaa  
420  
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780  
agagtgatgg atttgatttg tgagaaatgt atgaagcaaa\_gagacatgaa tgaagtattg  
840  
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&lt;211&gt; 441

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5522

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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5523

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4702

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&lt;210&gt; 5525

&lt;211&gt; 761

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5525

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<213> Homo sapiens

<400> 5528

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<211> 2602

<212> DNA

<213> Homo sapiens

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&lt;210&gt; 5530

&lt;211&gt; 603

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5530

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<212> PRT

<213> Homo sapiens

<400> 5532

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Glu	Asn	Gly	Gln	Arg	Lys	Tyr	Gly	Gly	Pro	Pro	Pro	Gly	Trp	Glu	Gly
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Asp	Val	Tyr	Glu	Asp	Glu	Leu	Val	Pro	Val	Phe	Glu	Ala	Val	Gly	Arg
				85					90					95	
Ile	Tyr	Glu	Leu	Arg	Leu	Met	Met	Asp	Phe	Asp	Gly	Lys	Asn	Arg	Gly
			100					105					110		
Tyr	Ala	Phe	Val	Met	Tyr	Cys	His	Lys	His	Glu	Ala	Lys	Arg	Ala	Val
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Arg	Glu	Leu	Asn	Asn	Tyr	Glu	Ile	Arg	Pro	Gly	Arg	Leu	Leu	Gly	Val
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Cys	Cys	Ser	Val	Asp	Asn	Cys	Arg	Leu	Phe	Ile	Gly	Gly	Ile	Pro	Lys
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Met	Lys	Lys	Arg	Glu	Glu	Ile	Leu	Glu	Glu	Ile	Ala	Lys	Val	Thr	Glu
				165					170					175	
Gly	Val	Leu	Asp	Val	Ile	Val	Tyr	Ala	Ser	Ala	Ala	Asp	Lys	Met	Lys
			180					185					190		
Asn	Arg	Gly	Phe	Ala	Phe	Val	Glu	Tyr	Glu	Ser	His	Arg	Ala	Ala	Ala
		195					200					205			
Met	Ala	Arg	Arg	Lys	Leu	Met	Pro	Gly	Arg	Ile	Gln	Leu	Trp	Gly	His
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Gln	Ile	Ala	Val	Asp	Trp	Ala	Glu	Pro	Glu	Ile	Asp	Val	Asp	Glu	Asp
225					230					235				240	
Val	Met	Glu	Thr	Val	Lys	Ile	Leu	Tyr	Val	Arg	Asn	Leu	Met	Ile	Glu
				245					250					255	
Thr	Thr	Glu	Asp	Thr	Ile	Lys	Lys	Ser	Phe	Gly	Gln	Phe	Asn	Pro	Gly
			260					265					270		
Cys	Val	Glu	Arg	Val	Lys	Lys	Ile	Arg	Asp	Tyr	Ala	Phe	Val	His	Phe
		275					280					285			
Thr	Ser	Arg	Glu	Asp	Ala	Val	His	Ala	Met	Asn	Asn	Leu	Asn	Gly	Thr
	290					295					300				
Glu	Leu	Glu	Gly	Ser	Cys	Leu	Glu	Val	Thr	Leu	Ala	Lys	Pro	Val	Asp
305					310					315				320	
Lys	Glu	Gln	Tyr	Ser	Arg	Tyr	Gln	Lys	Ala	Ala	Arg	Gly	Gly	Gly	Ala
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[illegible]

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<211> 505
<212> DNA
<213> Homo sapiens
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180
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 <212> PRT  
 <213> Homo sapiens

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 Tyr Arg Arg Gly Leu Ser Lys Tyr Glu Ser Ile Asp Glu Asp Glu Leu  
 35 40 45  
 Leu Ala Ser Leu Ser Ala Glu Glu Leu Lys Glu Leu Glu Arg Glu Leu  
 50 55 60  
 Glu Asp Ile Glu Pro Asp Arg Asn Leu Pro Val Gly Leu Arg Gln Lys  
 65 70 75 80  
 Ser Leu Thr Glu Lys Thr Pro Thr Gly Thr Phe Ser Arg Glu Ala Leu  
 85 90 95  
 Met Ala Tyr Trp Glu Lys Glu Ser Gln Lys Leu Leu Glu Lys Glu Arg  
 100 105 110  
 Leu Gly Glu Cys Gly Lys Val Ala Glu Asp Lys Glu Glu Ser Glu Glu  
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 Glu Leu Ile Phe Thr Glu Ser Asn Ser Glu Val Ser Glu Glu Val Tyr  
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<210> 5535  
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 <213> Homo sapiens

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1860  
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1887

&lt;210&gt; 5536

&lt;211&gt; 306

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5536

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Pro Gly Glu Thr Pro Lys His Gln Pro Gly Ser Pro Arg Gly Ser Gly
          35          40          45
Arg Glu Glu Asp Asp Glu Leu Leu Gly Asn Asp Asp Ser Asp Lys Thr
          50          55          60
Glu Leu Leu Ala Gly Gln Lys Lys Ser Ser Pro Phe Trp Thr Phe Glu
65          70          75          80
Tyr Tyr Gln Thr Phe Phe Asp Val Asp Thr Tyr Gln Val Phe Asp Arg
          85          90          95
Ile Lys Gly Ser Leu Leu Pro Ile Pro Gly Lys Asn Phe Val Arg Leu
          100          105          110
Tyr Ile Arg Ser Asn Pro Asp Leu Tyr Gly Pro Phe Trp Ile Cys Ala
          115          120          125
Thr Leu Val Phe Ala Ile Ala Ile Ser Gly Asn Leu Ser Asn Phe Leu
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Ile His Leu Gly Glu Lys Thr Tyr His Tyr Val Pro Glu Phe Arg Lys
145          150          155          160
Val Ser Ile Ala Ala Thr Ile Ile Tyr Ala Tyr Ala Trp Leu Val Pro
          165          170          175
Leu Ala Leu Trp Gly Phe Leu Met Trp Arg Asn Ser Lys Val Met Asn
          180          185          190
Ile Val Ser Tyr Ser Phe Leu Glu Ile Val Cys Val Tyr Gly Tyr Ser
          195          200          205
Leu Phe Ile Tyr Ile Pro Thr Ala Ile Leu Trp Ile Ile Pro Gln Lys
          210          215          220
Ala Val Arg Trp Ile Leu Val Met Ile Ala Leu Gly Ile Ser Gly Ser
225          230          235          240
Leu Leu Ala Met Thr Phe Trp Pro Ala Val Arg Glu Asp Asn Arg Arg
          245          250          255
Val Ala Leu Ala Thr Ile Val Thr Ile Val Leu Leu His Met Leu Leu
          260          265          270
Ser Val Gly Cys Leu Ala Tyr Phe Phe Asp Ala Pro Glu Met Asp His
          275          280          285
Leu Pro Thr Thr Thr Ala Thr Pro Asn Gln Thr Val Ala Ala Ala Lys
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<210> 5537

<211> 2881

<212> DNA

<213> Homo sapiens

<400> 5537

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&lt;210&gt; 5538

&lt;211&gt; 352

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5538

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			20					25					30		
Ala	Glu	Leu	Arg	His	Leu	Asp	Thr	Gln	Val	Gln	Arg	Cys	Glu	Asp	Ile
		35					40					45			
Leu	Gln	Gln	Leu	Gln	Ala	Val	Val	Pro	Gln	Ile	Asp	Met	Glu	Gly	Asp

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	85	90
Asn Pro Val Val Met Lys Asp Gly Lys Trp Val Val Gln Lys Tyr Ile		95
	100	105
Glu Arg Pro Leu Leu Ile Phe Gly Thr Lys Phe Asp Leu Arg Gln Trp		110
	115	120
Phe Leu Val Thr Asp Trp Asn Pro Leu Thr Val Trp Phe Tyr Arg Asp		125
	130	135
Ser Tyr Ile Arg Phe Ser Thr Gln Pro Phe Ser Leu Lys Asn Leu Asp		140
145	150	155
Asn Ser Val His Leu Cys Asn Asn Ser Ile Gln Lys His Leu Glu Asn		160
	165	170
Ser Cys His Arg His Pro Leu Leu Pro Pro Asp Asn Met Trp Ser Ser		175
	180	185
Gln Arg Phe Gln Ala His Leu Gln Glu Met Gly Ala Pro Asn Ala Trp		190
	195	200
Ser Thr Ile Ile Val Pro Gly Met Lys Asp Ala Val Ile His Ala Leu		205
	210	215
Gln Thr Ser Gln Asp Thr Val Gln Cys Arg Lys Ala Ser Phe Glu Leu		220
225	230	235
Tyr Gly Ala Asp Phe Val Phe Gly Glu Asp Phe Gln Pro Trp Leu Ile		240
	245	250
Glu Ile Asn Ala Ser Pro Thr Met Ala Pro Ser Thr Ala Val Thr Ala		255
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Arg Arg Leu Asp Arg Asn Cys Asp Thr Gly Ala Phe Glu Leu Ile Tyr		285
	290	295
Lys Gln Pro Val Thr Thr Ser Pro Ala Ser Thr Pro Arg Pro Ser Cys		300
305	310	315
Leu Leu Pro Met Tyr Ser Asp Thr Arg Ala Arg Ser Ser Asp Asp Ser		320
	325	330
Thr Ala Ser Trp Trp Ala Leu Arg Pro Cys Arg Pro Gln Ala Arg Pro		335
	340	345
		350

&lt;210&gt; 5539

&lt;211&gt; 1887

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5539

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300

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1887



&lt;210&gt; 5540

&lt;211&gt; 378

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5540

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 20           25           30
Ala Ala Met Gly Pro Ser Ala Leu Gly Gln Ser Gly Pro Gly Ser Met
 35           40           45
Ala Pro Trp Cys Ser Val Ser Ser Gly Pro Ser Arg Tyr Val Leu Gly
 50           55           60
Met Gln Glu Leu Phe Arg Gly His Ser Lys Thr Arg Glu Phe Leu Ala
 65           70           75           80
His Ser Ala Lys Val His Ser Val Ala Trp Ser Cys Asp Gly Arg Arg
 85           90           95
Leu Ala Ser Gly Ser Phe Asp Lys Thr Ala Ser Val Phe Leu Leu Glu
100           105           110
Arg Thr Gly Trp Ser Lys Lys Thr Ile Ile Gly Asp Met Gly Ile Xaa
115           120           125
Val Asp Gln Leu Cys Trp His Pro Ser Asn Pro Asp Leu Phe Val Thr
130           135           140
Ala Ser Gly Asp Lys Thr Ile Arg Ile Trp Asp Val Arg Thr Thr Lys
145           150           155           160
Cys Ile Ala Thr Val Asn Thr Lys Gly Glu Asn Ile Asn Ile Cys Trp
165           170           175
Ser Pro Asp Gly Gln Thr Ile Ala Val Gly Asn Lys Asp Asp Val Val
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Thr Phe Ile Asp Ala Lys Thr His Arg Ser Lys Ala Glu Glu Gln Phe
195           200           205
Lys Phe Glu Val Asn Glu Ile Ser Trp Asn Asn Asp Asn Asn Met Phe
210           215           220
Phe Leu Thr Asn Gly Asn Gly Cys Ile Asn Ile Leu Ser Tyr Pro Glu
225           230           235           240
Leu Lys Pro Val Gln Ser Ile Asn Ala His Pro Ser Asn Cys Ile Cys
245           250           255
Ile Lys Phe Asp Pro Met Gly Lys Tyr Phe Ala Thr Gly Ser Ala Asp
260           265           270
Ala Leu Val Ser Leu Trp Asp Val Asp Glu Leu Val Cys Val Arg Cys
275           280           285
Phe Ser Arg Leu Asp Trp Pro Val Arg Thr Leu Ser Phe Ser His Asp
290           295           300
Gly Lys Met Leu Ala Ser Ala Ser Glu Asp His Phe Ile Asp Ile Ala
305           310           315           320
Glu Val Glu Thr Gly Asp Lys Leu Trp Glu Val Gln Cys Glu Ser Pro
325           330           335
Thr Phe Thr Val Ala Trp His Pro Lys Arg Pro Leu Leu Ala Phe Ala
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Cys Asp Asp Lys Asp Gly Lys Tyr Asp Ser Ser Arg Glu Ala Gly Thr
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Val Lys Leu Phe Gly Leu Pro Asn Asp Ser

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&lt;210&gt; 5541

&lt;211&gt; 1854

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5541

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<210> 5542

<211> 315

<212> PRT

<213> Homo sapiens

<400> 5542

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Trp	Leu	Tyr	Ser	Arg	Gly	Val	Cys	Arg	Thr	Lys	Ser	Thr	Ser	Asp	Asn
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Glu	Thr	Ser	Arg	Lys	Asn	Glu	Glu	Val	Met	Thr	His	Ser	Gly	Leu	Trp
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Arg	Thr	Cys	Cys	Leu	Glu	Gly	Ala	Phe	Arg	Gly	Val	Cys	Lys	Lys	Ile
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Lys	Ile	Thr	Met	Gly	Thr	Leu	Leu	Asn	Ser	Asp	Arg	Asp	His	Ala	Phe				
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&lt;210&gt; 5543

&lt;211&gt; 4021

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5543

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&lt;210&gt; 5544

&lt;211&gt; 1141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5544

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Glu	Pro	Ser	Leu	Glu	Ile	Leu	Pro	Arg	Thr	Ser	Leu	His	Ser	Ile	Pro
			35				40				45				
Val	Thr	Val	Glu	Val	Lys	Pro	Val	Leu	Pro	Arg	Ala	Met	Pro	Ser	Ser
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Ala	Leu	Val	Gly	Ser	Val	Asp	Pro	Thr	Leu	Arg	Glu	Gln	Gln	Leu	Gln
			85				90				95				
Gln	Glu	Leu	Leu	Ala	Leu	Lys	Gln	Gln	Gln	Gln	Leu	Gln	Lys	Gln	Leu
			100				105				110				
Leu	Phe	Ala	Glu	Phe	Gln	Lys	Gln	His	Asp	His	Leu	Thr	Arg	Gln	His
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Gln	Arg	Leu	Glu	Gln	Gln	Leu	Leu	Ile	Leu	Arg	Asn	Lys	Glu	Lys	Ser
			180				185				190				
Lys	Glu	Ser	Ala	Ile	Ala	Ser	Thr	Glu	Val	Lys	Leu	Arg	Leu	Gln	Glu
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Phe	Leu	Leu	Ser	Lys	Ser	Lys	Glu	Pro	Thr	Pro	Gly	Gly	Leu	Asn	His
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Ser	Leu	Pro	Gln	His	Pro	Lys	Cys	Trp	Gly	Ala	His	His	Ala	Ser	Leu
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Ser	Pro	Ser	Leu	Pro	Asn	Ile	Ser	Leu	Gly	Leu	Gln	Ala	Thr	Val	Thr
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Val	Thr	Asn	Ser	His	Leu	Thr	Ala	Ser	Pro	Lys	Leu	Ser	Thr	Gln	Gln
			405				410				415				
Glu	Ala	Glu	Arg	Gln	Ala	Leu	Gln	Ser	Leu	Arg	Gln	Gly	Gly	Thr	Leu
			420				425				430				
Thr	Gly	Lys	Phe	Met	Ser	Thr	Ser	Ser	Ile	Pro	Gly	Cys	Leu	Leu	Gly
			435				440				445				
Val	Ala	Leu	Glu	Gly	Asp	Gly	Ser	Pro	His	Gly	His	Ala	Ser	Leu	Leu



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Ser Arg Thr Gln Ser Ser Pro Leu Pro Gln Ser Pro Gln Ala Leu Gln					
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Gln Leu Val Met Gln Gln Gln His Gln Gln Phe Leu Glu Lys Gln Lys					
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Gln Gln Gln Leu Gln Leu Gly Lys Ile Leu Thr Lys Thr Gly Glu Leu					
545		550		555	560
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Ser Ser Ala Val Arg Met Ala Val Gly Cys Leu Leu Glu Leu Ala Phe					
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Lys Val Ala Ala Gly Glu Leu Lys Asn Gly Phe Ala Ile Ile Arg Pro					
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<210> 5545
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<213> Homo sapiens
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4729

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&lt;210&gt; 5546

<211> 183  
 <212> PRT  
 <213> Homo sapiens

<400> 5546

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Ala Ile Ile Leu Ala Gln Lys Asn Met Leu Asp Arg Phe Glu Lys Thr
          35           40           45
Asn Glu Met Leu Leu Asn Phe Asn Asn Leu Ser Ser Ala Arg Leu Gln
          50           55           60
Gln Met Ser Glu Arg Phe Leu His His Thr Arg Thr Leu Val Glu Met
65           70           75           80
Lys Arg Asp Leu Asp Ser Ile Phe Arg Arg Ile Arg Thr Leu Lys Gly
          85           90           95
Lys Leu Ala Arg Gln His Pro Glu Ala Phe Ser His Ile Pro Glu Ala
          100          105          110
Ser Phe Leu Glu Glu Glu Asp Glu Asp Pro Ile Pro Pro Ser Thr Thr
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Thr Thr Ile Ala Thr Ser Glu Gln Ser Thr Gly Ser Cys Asp Thr Ser
--130          135          140
Pro Asp Thr Val Ser Pro Ser Leu Ser Pro Gly Phe Glu Asp Leu Ser
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Asp Glu Glu Met Thr Gly Glu
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<210> 5547  
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 <212> DNA  
 <213> Homo sapiens

<400> 5547

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420
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540

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&lt;210&gt; 5548

&lt;211&gt; 167

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5548

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Gly	Ser	Leu	Ala	Arg	Lys	Gln	Gly	Leu	Trp	Lys	Thr	Ala	Ala	Pro	Glu
			20					25					30		
Leu	Gln	Thr	Asn	Val	Arg	Ser	Gln	Ile	Leu	Arg	Leu	Arg	His	Thr	Ala
		35					40					45			
Phe	Val	Ile	Pro	Lys	Lys	Asn	Val	Pro	Thr	Ser	Lys	Arg	Glu	Thr	Tyr
	50					55					60				
Thr	Glu	Asp	Phe	Ile	Lys	Lys	Gln	Ile	Glu	Glu	Phe	Asn	Ile	Gly	Lys
65					70					75				80	
Arg	His	Leu	Ala	Asn	Met	Met	Gly	Glu	Asp	Pro	Glu	Thr	Phe	Thr	Gln
				85				90					95		
Glu	Asp	Ile	Asp	Arg	Ala	Ile	Ala	Tyr	Leu	Phe	Pro	Ser	Gly	Leu	Phe
			100					105					110		
Glu	Lys	Arg	Ala	Arg	Pro	Val	Met	Lys	His	Pro	Glu	Gln	Ile	Phe	Pro
		115					120					125			
Arg	Gln	Arg	Ala	Ile	Gln	Trp	Gly	Glu	Asp	Gly	Arg	Pro	Phe	His	Tyr

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Leu Phe Tyr Thr Gly Lys Gln Ser Tyr Tyr Ser Leu Met His Asp Val				
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Xaa Met Glu Cys Tyr Ser Ile				160
	165			

&lt;210&gt; 5549

&lt;211&gt; 1865

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5549

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 1865

&lt;210&gt; 5550

&lt;211&gt; 242

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5550

Met	Val	Ala	Pro	Ala	Val	Lys	Val	Ala	Arg	Gly	Trp	Ser	Gly	Leu	Ala
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Leu	Gly	Val	Arg	Arg	Ala	Val	Leu	Gln	Leu	Pro	Gly	Leu	Thr	Gln	Val
			20					25					30		
Arg	Trp	Ser	Arg	Tyr	Ser	Pro	Glu	Phe	Lys	Asp	Pro	Leu	Ile	Asp	Lys
	35						40					45			
Glu	Tyr	Tyr	Arg	Lys	Pro	Val	Glu	Glu	Leu	Thr	Glu	Glu	Glu	Lys	Tyr
	50					55					60				
Val	Arg	Glu	Leu	Lys	Lys	Thr	Gln	Leu	Ile	Lys	Ala	Ala	Pro	Ala	Gly
65					70					75					80
Lys	Thr	Ser	Ser	Val	Phe	Glu	Asp	Pro	Val	Ile	Ser	Lys	Phe	Thr	Asn
				85					90					95	
Met	Met	Met	Ile	Gly	Gly	Asn	Lys	Val	Leu	Ala	Arg	Ser	Leu	Met	Ile
			100					105					110		
Gln	Thr	Leu	Glu	Ala	Val	Lys	Arg	Lys	Gln	Phe	Glu	Lys	Tyr	His	Ala
	115						120					125			
Ala	Ser	Ala	Glu	Glu	Gln	Ala	Thr	Ile	Glu	Arg	Asn	Pro	Tyr	Thr	Ile
	130					135					140				
Phe	His	Gln	Ala	Leu	Lys	Asn	Cys	Glu	Pro	Met	Ile	Gly	Leu	Val	Pro
145					150					155					160
Ile	Leu	Lys	Gly	Gly	Arg	Phe	Tyr	Gln	Val	Pro	Val	Pro	Leu	Pro	Asp
			165					170						175	
Arg	Arg	Arg	Arg	Phe	Leu	Ala	Met	Lys	Trp	Met	Ile	Thr	Glu	Cys	Arg
			180					185					190		
Asp	Lys	Lys	His	Gln	Arg	Thr	Leu	Met	Pro	Glu	Lys	Leu	Ser	His	Lys



	195		200		205
Leu	Leu Glu Ala Phe His	Asn Gln Gly Pro Val	Ile Lys Arg Lys His		
210		215	220		
Asp	Leu His Lys Met Ala	Glu Ala Asn Arg Ala	Leu Ala His Tyr Arg		
225		230	235	240	
Trp	Trp				

&lt;210&gt; 5551

&lt;211&gt; 1689

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5551

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<210> 5552

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5552

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			20					25					30		
Tyr	Leu	Leu	Asp	Pro	Tyr	Val	Asn	Leu	Ala	Pro	Gly	Cys	Arg	Ser	Leu
		35					40					45			
Phe	Ser	Val	Ile	Val	Arg	Val	Val	Gly	Asp	Leu	Met	Leu	Arg	Ile	Gln
	50					55					60				
Arg	Ile	Gln	Asp	Phe	Thr	Pro	Lys	Leu	Leu	Leu	Val	Arg	Lys	Arg	Leu
65					70					75					80
Leu	Gly	Leu	Glu	Pro	Glu	Gly	Pro	Ile	Ser	Asp	Leu	Glu	Pro	Val	Glu
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<211> 274

<212> DNA

<213> Homo sapiens

<400> 5553

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274

<210> 5554  
<211> 90  
<212> PRT  
<213> Homo sapiens

<400> 5554  
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Pro Gln Pro His Pro Thr Ala Ser Pro Asp Pro Lys Val Arg Ile Thr  
35 40 45  
Gly Pro Ala Thr Ala Pro Ala Val Val Leu Ser His Tyr Arg Gly Cys  
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<211> 414  
<212> DNA  
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414

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<212> PRT  
<213> Homo sapiens

<400> 5556  
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Gly Gln Arg Ser Asp Val Gly Phe Arg Lys Gln Gly Pro Gly Gly Asp  
20 25 30  
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<213> Homo sapiens
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1080					

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 1860  
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&lt;210&gt; 5558

&lt;211&gt; 360

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5558

Met	Asp	Asp	Phe	Thr	Pro	Pro	Gly	Ser	Gly	Ala	Cys	Lys	Phe	Ile	Gly
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Ser	Leu	His	Ser	Tyr	Ser	Phe	Ser	Ser	Lys	His	Thr	Arg	Glu	Arg	Pro
			20					25					30		
Ser	Val	Pro	Arg	Glu	Pro	Ile	Asp	Arg	Lys	Arg	Leu	Lys	Lys	Asp	Val
		35					40					45			
Glu	Pro	Ser	Cys	Ser	Gly	Ser	Ser	Leu	Gly	Pro	Asp	Lys	Gly	Leu	Ala
	50					55					60				
Gln	Ser	Pro	Pro	Ser	Ser	Ser	Leu	Thr	Ala	Thr	Arg	Gln	Lys	Pro	Ser
65					70				75					80	
Gln	Ser	Pro	Ser	Ala	Pro	Pro	Ala	Asp	Val	Thr	Pro	Lys	Pro	Ala	Thr
			85					90						95	
Glu	Ala	Val	Gln	Ser	Glu	His	Ser	Asp	Ala	Ser	Pro	Met	Ser	Ile	Asn
		100					105				110				
Glu	Val	Ile	Leu	Ser	Ala	Ser	Gly	Ala	Cys	Lys	Leu	Ile	Asp	Ser	Leu
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His	Ser	Tyr	Cys	Phe	Ser	Ser	Arg	Gln	Asn	Lys	Ser	Gln	Val	Cys	Cys

130		135		140
Leu Arg Glu Gln Val	Glu Lys Lys Asn Gly Glu	Leu Lys Ser Leu Arg		
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Gln Arg Val Ser Arg	Ser Asp Ser Gln Val Arg	Lys Leu Gln Glu Lys		
	165	170	175	
Leu Asp Glu Leu Arg	Arg Val Ser Val Pro Tyr	Pro Ser Ser Leu Leu		
	180	185	190	
Ser Pro Ser Arg Glu	Pro Pro Lys Met Asn Pro	Val Val Glu Pro Leu		
	195	200	205	
Ser Trp Met Leu Gly	Thr Trp Leu Ser Asp	Pro Pro Gly Ala Gly Thr		
	210	215	220	
Tyr Pro Thr Leu Gln	Pro Phe Gln Tyr Leu	Glu Glu Val His Ile Ser		
225	230	235	240	
His Val Gly Gln Pro	Met Leu Asn Phe Ser	Phe Asn Ser Phe His Pro		
	245	250	255	
Asp Thr Arg Lys Pro	Met His Arg Glu Cys	Gly Phe Ile Arg Leu Lys		
	260	265	270	
Pro Asp Thr Asn Lys	Val Ala Phe Val Ser	Ala Gln Asn Thr Gly Val		
	275	280	285	
Val Glu Val Glu Glu	Gly Glu Val Asn Gly	Gln Glu Leu Cys Ile Ala		
	290	295	300	
Ser His Ser Ile Ala	Arg Ile Ser Phe Ala	Lys Glu Pro His Val Glu		
305	310	315	320	
Gln Ile Thr Arg Lys	Phe Arg Leu Asn Ser	Glu Gly Lys Leu Glu Gln		
	325	330	335	
Thr Val Ser Met Ala	Thr Thr Thr Gln	Pro Met Thr Gln His Leu His		
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Val Thr Tyr Lys Lys	Val Thr Pro			
	355	360		

&lt;210&gt; 5559

&lt;211&gt; 3866

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5559

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2160



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<210> 5560  
 <211> 1165  
 <212> PRT  
 <213> Homo sapiens

<400> 5560  
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 Asn Gly Thr Tyr Gly Gln Val Tyr Lys Gly Arg His Val Lys Thr Gly  
 35 40 45  
 Gln Leu Ala Ala Ile Lys Val Met Asp Val Thr Glu Asp Glu Glu Glu  
 50 55 60  
 Glu Ile Lys Leu Glu Ile Asn Met Leu Lys Lys Tyr Ser His His Arg  
 65 70 75 80  
 Asn Ile Ala Thr Tyr Tyr Gly Ala Phe Ile Lys Lys Ser Pro Pro Gly  
 85 90 95  
 His Asp Asp Gln Leu Trp Leu Val Met Glu Phe Cys Gly Ala Gly Ser  
 100 105 110  
 Ile Thr Asp Leu Val Lys Asn Thr Lys Gly Asn Thr Leu Lys Glu Asp  
 115 120 125  
 Trp Ile Ala Tyr Ile Ser Arg Glu Ile Leu Arg Gly Leu Ala His Leu  
 130 135 140  
 His Ile His His Val Ile His Arg Asp Ile Lys Gly Gln Asn Val Leu  
 145 150 155 160  
 Leu Thr Glu Asn Ala Glu Val Lys Leu Val Asp Phe Gly Val Ser Ala  
 165 170 175  
 Gln Leu Asp Arg Thr Val Gly Arg Arg Asn Thr Phe Ile Gly Thr Pro  
 180 185 190  
 Tyr Trp Met Ala Pro Glu Val Ile Ala Cys Asp Glu Asn Pro Asp Ala  
 195 200 205  
 Thr Tyr Asp Tyr Arg Ser Asp Leu Trp Ser Cys Gly Ile Thr Ala Ile  
 210 215 220  
 Glu Met Ala Glu Gly Ala Pro Pro Leu Cys Asp Met His Pro Met Arg  
 225 230 235 240  
 Ala Leu Phe Leu Ile Pro Arg Asn Pro Pro Pro Arg Leu Lys Ser Lys  
 245 250 255  
 Lys Trp Ser Lys Lys Phe Ile Asp Phe Ile Asp Thr Cys Leu Ile Lys  
 260 265 270  
 Thr Tyr Met Gln Arg Pro Thr Thr Glu Gln Leu Leu Lys Phe Pro Phe  
 275 280 285  
 Ile Arg Asp Gln Pro Thr Glu Arg Gln Val Arg Ile Gln Leu Lys Asp  
 290 295 300  
 His Ile Asp Arg Thr Arg Lys Lys Arg Gly Glu Lys Glu Glu Thr Glu  
 305 310 315 320  
 Tyr Glu Tyr Ser Gly Ser Glu Glu Glu Asp Asp Ser His Gly Glu Glu  
 325 330 335  
 Gly Glu Pro Ser Ser Ile Met Asn Val Pro Gly Glu Ser Thr Leu Arg

4744

770		775		780
Ile Ser Pro Ser Ser Gly Thr Thr Val Thr Ser Val Val Gly Phe Ser				
785		790		795
Cys Asp Gly Met Arg Pro Glu Ala Ile Arg Gln Asp Pro Thr Arg Lys				800
		805		810
Gly Ser Val Val Asn Val Asn Pro Thr Asn Thr Arg Pro Gln Ser Asp				815
		820		825
Thr Pro Glu Ile Arg Lys Tyr Lys Lys Arg Phe Asn Ser Glu Ile Leu				830
		835		840
Cys Ala Ala Leu Trp Gly Val Asn Leu Leu Val Gly Thr Glu Ser Gly				845
		850		855
Leu Met Leu Leu Asp Arg Ser Gly Gln Gly Lys Val Tyr Pro Leu Ile				860
		865		870
Asn Arg Arg Arg Phe Gln Gln Met Asp Val Leu Glu Gly Leu Asn Val				875
		885		890
Leu Val Thr Ile Ser Gly Lys Lys Asp Lys Leu Arg Val Tyr Tyr Leu				895
		900		905
Ser Trp Leu Arg Asn Lys Ile Leu His Asn Asp Pro Glu Val Glu Lys				910
		915		920
Lys Gln Gly Trp Thr Thr Val Gly Asp Leu Glu Gly Cys Val His Tyr				925
		930		935
Lys Val Val Lys Tyr Glu Arg Ile Lys Phe Leu Val Ile Ala Leu Lys				940
		945		950
Ser Ser Val Glu Val Tyr Ala Trp Ala Pro Lys Pro Tyr His Lys Phe				955
		965		970
Met Ala Phe Lys Ser Phe Gly Glu Leu Val His Lys Pro Leu Leu Val				975
		980		985
Asp Leu Thr Val Glu Glu Gly Gln Arg Leu Lys Val Ile Tyr Gly Ser				990
		995		1000
Cys Ala Gly Phe His Ala Val Asp Val Asp Ser Gly Ser Val Tyr Asp				1005
		1010		1015
Ile Tyr Leu Pro Thr His Val Arg Lys Asn Pro His Ser Met Ile Gln				1020
		1025		1030
Cys Ser Ile Lys Pro His Ala Ile Ile Ile Leu Pro Asn Thr Asp Gly				1035
		1045		1050
Met Glu Leu Leu Val Cys Tyr Glu Asp Glu Gly Val Tyr Val Asn Thr				1055
		1060		1065
Tyr Gly Arg Ile Thr Lys Asp Val Val Leu Gln Trp Gly Glu Met Pro				1070
		1075		1080
Thr Ser Val Ala Tyr Ile Arg Ser Asn Gln Thr Met Gly Trp Gly Glu				1085
		1090		1095
Lys Ala Ile Glu Ile Arg Ser Val Glu Thr Gly His Leu Asp Gly Val				1100
		1105		1110
Phe Met His Lys Arg Ala Gln Arg Leu Lys Phe Leu Cys Glu Arg Asn				1115
		1125		1130
Asp Lys Val Phe Phe Ala Ser Val Arg Ser Gly Gly Ser Ser Gln Val				1135
		1140		1145
Tyr Phe Met Thr Leu Gly Arg Thr Ser Leu Leu Ser Trp				1150
		1155		1160
				1165

&lt;210&gt; 5561

&lt;211&gt; 2089

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<400> 5561  
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180  
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480  
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600  
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660  
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 2089

<210> 5562

<211> 372

<212> PRT

<213> Homo sapiens

<400> 5562

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			20					25					30		
Asp	Ser	Asn	Met	Lys	Arg	Glu	Gln	Pro	Arg	Glu	Arg	Pro	Arg	Ala	Trp
		35					40					45			
Asp	Tyr	Pro	His	Gly	Leu	Val	Gly	Leu	His	Asn	Ile	Gly	Gln	Thr	Cys
	50					55					60				
Cys	Leu	Asn	Ser	Leu	Ile	Gln	Val	Phe	Val	Met	Asn	Val	Asp	Phe	Thr
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Arg	Ile	Leu	Lys	Arg	Ile	Thr	Val	Pro	Arg	Gly	Ala	Asp	Glu	Gln	Arg
			85						90					95	
Arg	Ser	Val	Pro	Phe	Gln	Met	Leu	Leu	Leu	Leu	Glu	Lys	Met	Gln	Asp
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Ile	Cys	Val	Asp	Cys	Ala	Met	Glu	Ser	Ser	Arg	Asn	Ser	Ser	Met	Leu
		180						185						190	
Thr	Leu	Pro	Leu	Ser	Leu	Phe	Asp	Val	Asp	Ser	Lys	Pro	Leu	Lys	Thr
		195					200						205		
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		210				215					220				
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225		230		235		240									
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Met	Arg	Phe	Ser	Ile	Arg	Asn	Ser	Gln	Thr	Arg	Lys	Ile	Cys	His	Ser
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Leu	Tyr	Phe	Pro	Gln	Ser	Leu	Asp	Phe	Ser	Gln	Ile	Leu	Pro	Met	Lys
			275						280					285	
Arg	Glu	Ser	Cys	Asp	Ala	Glu	Glu	Gln	Ser	Gly	Gly	Gln	Tyr	Glu	Leu
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Phe	Ala	Val	Ile	Ala	His	Val	Gly	Met	Ala	Asp	Ser	Gly	His	Tyr	Cys
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Val	Tyr	Ile	Arg	Asn	Ala	Val	Asp	Gly	Lys	Trp	Phe	Cys	Phe	Asn	Asp
				325					330					335	
Ser	Asn	Ile	Cys	Leu	Val	Ser	Trp	Glu	Asp	Ile	Gln	Cys	Thr	Tyr	Gly
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Asn	Pro	Asn	Tyr	His	Trp	Gln	Glu	Thr	Ala	Tyr	Leu	Leu	Val	Tyr	Met
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Lys	Met	Glu	Cys												
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&lt;210&gt; 5563

&lt;211&gt; 2878

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5563

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<210> 5564

<211> 683

<212> PRT

<213> Homo sapiens

<400> 5564

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			20					25					30		
Ser	Ala	Glu	Arg	Ala	Leu	Glu	Glu	Ala	Val	Ala	Thr	Gly	Thr	Leu	Asn
		35					40					45			
Leu	Ser	Asn	Arg	Arg	Leu	Lys	His	Phe	Pro	Arg	Gly	Ala	Ala	Arg	Ser
	50					55				60					
Tyr	Asp	Leu	Ser	Asp	Ile	Thr	Gln	Ala	Asp	Leu	Ser	Arg	Asn	Arg	Phe
65					70					75				80	
Pro	Glu	Val	Pro	Glu	Ala	Ala	Cys	Gln	Leu	Val	Ser	Leu	Glu	Gly	Leu
				85					90					95	
Ser	Leu	Tyr	His	Asn	Cys	Leu	Arg	Cys	Leu	Asn	Pro	Ala	Leu	Gly	Asn
			100					105					110		
Leu	Thr	Ala	Leu	Thr	Tyr	Leu	Asn	Leu	Ser	Arg	Asn	Gln	Leu	Ser	Leu
		115					120					125			
Leu	Pro	Pro	Tyr	Ile	Cys	Gln	Leu	Pro	Leu	Arg	Val	Leu	Ile	Val	Ser
		130				135					140				
Asn	Asn	Lys	Leu	Gly	Ala	Leu	Pro	Pro	Asp	Ile	Gly	Thr	Leu	Gly	Ser
145					150				155					160	
Leu	Arg	Gln	Leu	Asp	Val	Ser	Ser	Asn	Glu	Leu	Gln	Ser	Leu	Pro	Ser
				165					170					175	
Glu	Leu	Cys	Gly	Leu	Ser	Ser	Leu	Arg	Asp	Leu	Asn	Val	Arg	Arg	Asn
			180					185				190			
Gln	Leu	Ser	Thr	Leu	Pro	Glu	Glu	Leu	Gly	Asp	Leu	Pro	Leu	Val	Arg
		195					200					205			
Leu	Asp	Phe	Ser	Cys	Asn	Arg	Val	Ser	Arg	Ile	Pro	Val	Ser	Phe	Cys
	210					215					220				
Arg	Leu	Arg	His	Leu	Gln	Val	Ile	Leu	Leu	Asp	Ser	Asn	Pro	Leu	Gln
225					230					235				240	
Ser	Pro	Pro	Ala	Gln	Val	Cys	Leu	Lys	Gly	Lys	Leu	His	Ile	Phe	Lys
				245					250					255	
Tyr	Leu	Ser	Thr	Glu	Ala	Gly	Gln	Arg	Gly	Ser	Ala	Leu	Gly	Asp	Leu

4751

<210> 5565  
<211> 472  
<212> DNA  
<213> Homo sapiens

<400> 5565  
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120  
gaatgaaggg gctcactggg agtggttccc aacttcgttg catattaaac cccccggaga  
180  
acttaaactc cagtgccag tcctatgcaa tcagatcctg ggtctccact gtgcagcgcc  
240  
cgtggagagc cagcgatgtg gagggtcgag atcacccagt tctttgggga cagggtctca  
300  
ctgcccccaa ggctggagtc cggtggtgca atcacggctc acagcagtct cgacctccag  
360  
ggctcaagcg atcctccagc ctcagcctcc cgagcagctg ggagcacagg cgcataccac  
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472

<210> 5566  
<211> 76  
<212> PRT  
<213> Homo sapiens

<400> 5566  
Met Gln Ser Asp Pro Gly Ser Pro Leu Cys Ser Ala Arg Gly Glu Pro  
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Ala Met Trp Arg Val Glu Ile Thr Gln Phe Phe Gly Asp Arg Val Ser  
20 25 30  
Leu Pro Pro Arg Leu Glu Ser Gly Gly Ala Ile Thr Ala His Ser Ser  
35 40 45  
Leu Asp Leu Gln Gly Ser Ser Asp Pro Pro Ala Ser Ala Ser Arg Ala  
50 55 60  
Ala Gly Ser Thr Gly Ala Tyr His Ala Trp Leu Phe  
65 70 75

<210> 5567  
<211> 968  
<212> DNA  
<213> Homo sapiens

<400> 5567  
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120  
taaaaaccat ttttagctca caagctgtac aaaaacagac ggtgagtaaa ttggcccaca  
180  
gaccggtttg ctagcccctg ggcttaagag atctgtccac ttactcctca acatgcagag  
240

tgtgaactgt gtgaactgca taggccacag caatcttact gcatccattc ccgctgcatc  
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 420  
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 480  
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 540  
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 600  
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 960  
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 968

&lt;210&gt; 5568

&lt;211&gt; 130

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5568

Met	Gln	Ser	Val	Asn	Cys	Val	Asn	Cys	Ile	Gly	His	Ser	Asn	Leu	Thr
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Ala	Ser	Ile	Pro	Ala	Ala	Ser	Leu	Phe	Leu	Ile	Cys	Ile	His	Ser	Val
			20					25					30		
His	Arg	Ser	Ile	His	Leu	Ala	Pro	Leu	Gln	Ile	Trp	Val	Leu	Cys	Lys
		35					40					45			
Ile	Leu	Pro	Trp	Asp	Thr	Glu	Gly	Lys	Ser	Asp	Thr	Ala	Leu	Leu	Ser
	50					55					60				
Ser	Ser	Gln	Thr	Leu	Arg	Tyr	Pro	Asp	Thr	Thr	Ala	Leu	Ile	Val	Ser
65					70					75				80	
Glu	Asn	Thr	Ala	Thr	Ser	Ala	Gly	Lys	Tyr	Gln	Arg	Cys	Phe	Thr	Arg
			85					90					95		
Tyr	Met	Tyr	Gln	Ile	Leu	Lys	Ala	Ala	Val	Pro	Lys	Tyr	His	Lys	Leu
			100					105					110		
His	Gly	Leu	Lys	Gln	Gln	Lys	Phe	Ile	Pro	Ser	Gln	Ser	Trp	Arg	Pro
		115					120					125			
Asp	Val														

&lt;210&gt; 5569

&lt;211&gt; 876

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5569

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300
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360
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420
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876

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&lt;210&gt; 5570

&lt;211&gt; 169

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5570

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Thr Ala Arg Leu Gly Gln Ser Lys Ser Trp Glu Val Thr Leu Arg Leu
1          5          10          15
Leu Val Gln Ala Val Glu Tyr Asn Ile Phe Glu Gly Met Glu Cys His
20          25          30
Gly Ser Pro Leu Val Val Ile Ser Gln Gly Lys Ile Val Phe Glu Asp
35          40          45
Gly Asn Ile Asn Val Asn Lys Gly Met Gly Arg Phe Ile Pro Arg Lys
50          55          60
Ala Phe Pro Glu His Ser Ser Thr Trp Leu Glu Leu His Asn His Gly
65          70          75          80
Arg Arg His Val Cys Glu Ala Ser Trp Gly Cys Thr Ala Asp Pro Leu
85          90          95
Leu Ser Pro Leu Ala Leu Ser Ala Ala Phe Met Trp Leu Ser Pro Ser

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      100      105      110
Val Leu Gln Ala Phe Ile Ser Phe Arg Ala Ala Pro Ser Leu Cys Pro
      115      120      125
Gly Thr Leu Ala Lys Met Gln Cys Leu Pro Asn Ser His Ile Ser Phe
      130      135      140
Asn Gln Gly Ala Ile Pro Ala Trp Lys Ser Pro Ser Cys Ser Cys Trp
145      150      155      160
Gln Val Gln Val Pro Val Cys Asp Gly
      165

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<210> 5571  
 <211> 405  
 <212> DNA  
 <213> Homo sapiens

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<400> 5571
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405

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<210> 5572  
 <211> 135  
 <212> PRT  
 <213> Homo sapiens

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<400> 5572
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Ser Tyr His Pro Met Val Thr Ala Ser Glu Arg Ile Phe Val Leu Asn
      20      25      30
Gln Leu Arg Asp Pro Thr Ser Pro Lys Phe Pro Glu Asp Phe Asp Asp
      35      40      45
Gly Glu His Ala Lys Gln Lys Ser Val Ile Ser Trp Leu Leu Asn His
      50      55      60
Asp Pro Ala Lys Arg Pro Thr Ala Thr Glu Leu Leu Lys Ser Glu Leu
65      70      75      80
Leu Pro Pro Pro Gln Met Glu Glu Ser Glu Leu His Glu Val Leu His
      85      90      95
His Thr Leu Thr Asn Val Asp Gly Lys Ala Tyr Arg Thr Met Met Ala
      100      105      110
Gln Ile Phe Ser Gln Arg Leu Ala Gly Ala Gly Gly Gly Gly Tyr Arg
      115      120      125
Ser Arg Leu Gly Val Pro Arg

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130

135

&lt;210&gt; 5573

&lt;211&gt; 1279

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5573

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120  
tccgtcagag cctaggggag cctgccctcc cgcgcctcgt cggggccccg ccaggcacct  
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240  
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420  
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600  
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&lt;210&gt; 5574

<211> 312  
 <212> PRT  
 <213> Homo sapiens

<400> 5574

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Pro Arg Lys Ala Leu Leu Ile Ala Gly Ile Ser Gln Ser Cys Ser Val
      20           25           30
Ala Glu Ile Glu Glu Ala Leu Gln Ala Gly Leu Ala Pro Leu Gly Glu
      35           40           45
Tyr Arg Leu Leu Gly Arg Met Phe Arg Arg Asp Glu Asn Arg Lys Val
      50           55           60
Ala Leu Val Gly Leu Thr Ala Glu Thr Ser His Ala Leu Val Pro Lys
  65           70           75           80
Glu Ile Pro Gly Lys Gly Gly Ile Trp Arg Val Ile Phe Lys Pro Pro
      85           90           95
Asp Pro Asp Asn Thr Phe Leu Ser Arg Leu Asn Glu Phe Leu Ala Gly
      100          105          110
Glu Gly Met Thr Val Gly Glu Leu Ser Arg Ala Leu Gly His Glu Asn
      115          120          125
Gly Ser Leu Asp Pro Glu Gln Gly Met Ile Pro Glu Met Trp Ala Pro
      130          135          140
Met Leu Ala Gln Ala Leu Glu Ala Leu Gln Pro Ala Leu Gln Cys Leu
  145          150          155          160
Lys Tyr Lys Lys Leu Arg Val Phe Ser Gly Arg Glu Ser Pro Glu Pro
      165          170          175
Gly Glu Glu Glu Phe Gly Arg Trp Met Phe His Thr Thr Gln Met Ile
      180          185          190
Lys Ala Trp Gln Val Pro Asp Val Glu Lys Arg Arg Arg Leu Leu Glu
      195          200          205
Ser Leu Arg Gly Pro Ala Leu Asp Val Ile Arg Val Leu Lys Ile Asn
      210          215          220
Asn Pro Leu Ile Thr Val Asp Glu Cys Leu Gln Ala Leu Glu Glu Val
  225          230          235          240
Phe Gly Val Thr Asp Asn Pro Arg Glu Leu Gln Val Lys Tyr Leu Thr
      245          250          255
Thr Tyr Gln Lys Asp Glu Glu Lys Leu Ser Ala Tyr Val Leu Arg Leu
      260          265          270
Glu Pro Leu Leu Gln Lys Leu Val Gln Arg Gly Ala Ile Glu Arg Asp
      275          280          285
Ala Val Asn Gln Ala Arg Leu Asp Gln Val Ile Ala Gly Ala Val His
      290          295          300
Lys Thr Ile Arg Arg Glu Leu Asn
  305          310

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<210> 5575  
 <211> 2405  
 <212> DNA  
 <213> Homo sapiens

<400> 5575

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&lt;210&gt; 5576

&lt;211&gt; 367

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5576

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Lys	Thr	Ala	Ser	Lys	Leu	Cys	Ser	Ala	Leu	Thr	Leu	Ser	Gly	Leu	Val
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Ser	Val	Arg	Glu	His	Leu	Gly	His	Glu	Ser	Asp	Asn	Leu	Leu	Phe	Val
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Thr	Cys	Gly	Leu	Ala	Glu	Glu	Leu	Glu	Lys	Glu	Lys	Ser	Arg	Glu	Gln		
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			325						330					335			
Ala	Phe	Arg	Cys	Ala	Ser	Cys	Pro	Tyr	Leu	Gly	Met	Pro	Ala	Phe	Lys		
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Pro	Gly	Glu	Lys	Val	Leu	Leu	Ser	Asp	Ser	Asn	Leu	His	Asp	Ala			
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&lt;210&gt; 5577

&lt;211&gt; 659

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5577

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<210> 5578  
 <211> 166  
 <212> PRT  
 <213> Homo sapiens

<400> 5578  
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 35 40 45  
 Leu Thr Gly Lys Asp Cys Pro His Val Arg Glu Lys Gly Ser Gly Lys  
 50 55 60  
 Gln Asn Lys Asp Leu Tyr Glu Leu Ala Phe Ser Ile Ser Tyr Asp Arg  
 65 70 75 80  
 Gly Glu Glu Glu Ala Tyr Leu Asn Phe Ile Ala Pro Ser Lys Arg Glu  
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 Phe Tyr Leu Trp Thr Asp Gly Leu Ser Ala Leu Leu Gly Ser Pro Met  
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 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 5580

&lt;211&gt; 283

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5580

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			20					25					30		
Ser	Gly	Pro	Ser	Gln	Thr	Thr	Ile	His	Leu	Leu	Pro	Thr	Ala	Pro	Thr
	35						40					45			
Thr	Val	Asn	Val	Thr	His	Arg	Pro	Val	Thr	Gln	Val	Thr	Thr	Arg	Leu
	50					55					60				
Pro	Val	Pro	Arg	Ala	Pro	Ala	Asn	His	Gln	Val	Val	Tyr	Thr	Thr	Leu
65					70				75						80
Pro	Ala	Pro	Pro	Ala	Gln	Ala	Pro	Leu	Arg	Gly	Thr	Val	Met	Gln	Ala
				85					90					95	
Pro	Ala	Val	Arg	Gln	Val	Asn	Pro	Gln	Asn	Ser	Val	Thr	Val	Arg	Val
				100					105					110	
Pro	Gln	Thr	Thr	Thr	Tyr	Val	Val	Asn	Asn	Gly	Leu	Thr	Leu	Gly	Ser
		115					120						125		
Thr	Gly	Pro	Gln	Leu	Thr	Val	His	His	Arg	Pro	Pro	Gln	Val	His	Thr
	130					135						140			
Glu	Pro	Pro	Arg	Pro	Val	His	Pro	Ala	Pro	Leu	Pro	Glu	Ala	Pro	Gln
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Pro	Gln	Arg	Leu	Pro	Pro	Glu	Ala	Ala	Ser	Thr	Ser	Leu	Pro	Gln	Lys



<400> 5582  
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Pro Ser Ser Lys Asn Leu Trp Glu Gln Ile Cys Lys Glu Tyr Glu Ala			
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Glu Gln Pro Pro Phe Pro Glu Gly Tyr Lys Val Lys Gln Glu Pro Val			
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Ile Thr Val Ala Pro Val Glu Glu Met Leu Phe His Gly Phe Ser Ala			
85	90	95	
Glu His Tyr Phe Pro Val Ser His Phe Thr Met Ile Ser Arg Thr Pro			
100	105	110	
Cys Pro Gln Asp Lys Ser Glu Thr Ile Asn Pro Lys Thr Cys Ser Pro			
115	120	125	
Lys Glu Tyr Leu Glu Thr Phe Ile Phe Pro Val Leu Leu Pro Gly Met			
130	135	140	
Ala Ser Leu Leu His Gln Ala Lys Lys Glu Lys Cys Phe Glu Val Ser			
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Cys Leu Ala Gly Phe Leu Tyr Phe Glu Ile Leu Asn His Ser Leu Leu			
165	170	175	
Ser Asp Asp Ser Ser Leu Ser Trp Tyr His Gln Val Val Leu Gln Met			
180	185	190	
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Ser His Thr Ile			
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&lt;210&gt; 5583

&lt;211&gt; 2101

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5583

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2101

&lt;210&gt; 5584

&lt;211&gt; 454

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5584

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Glu	Arg	Val	Ala	Ala	Leu	Gln	Thr	Val	Gly	Pro	Thr	Ala	Gly	Pro	Ala
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Pro	Asn	Ala	Phe	Thr	Ser	Thr	Leu	Glu	Lys	Val	Gly	Asp	His	Gln	Phe
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Leu	Leu	Tyr	Ser	Gly	Arg	Ser	Pro	Pro	Thr	Pro	Thr	Gly	Leu	Val	His
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Leu	Val	Val	Val	Ala	Ala	Lys	Lys	Leu	Val	Asn	Arg	Leu	Gln	Val	Ala
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Pro	Lys	Thr	Gln	Leu	Asp	Glu	Thr	Val	Leu	Trp	Val	Val	His	Val	Ser
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Lys	Ala	Leu	Gln	Asp	Leu	Ala	Arg	Lys	Glu	Met	Leu	Glu	Leu	Leu	Asp
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Leu Lys Arg Ser Cys Pro Thr Tyr Leu Ser Pro Pro Gln Pro Lys Asp
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Cys Pro Ile Leu Asp Leu Thr					
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&lt;210&gt; 5587

&lt;211&gt; 853

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5587

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&lt;210&gt; 5588

&lt;211&gt; 204

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5588

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Leu	Met	Asn	Leu	Thr	Arg	Ile	Arg	Ser	Thr	Gln	Phe	Lys	Asn	Ser	Met
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Ile	Phe	Tyr	Phe	Asn	Pro	Glu	Cys	Leu	Tyr	Val	Phe	Pro	Cys	Gln	Trp
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Asp	Asp	Lys	Gln	Pro	Thr	Phe	Arg	Ala	Leu	Tyr	Glu	Ala	Ile	Arg	Asp
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Leu	Lys	Phe	Leu	Glu	Thr	Val	His	Thr	Leu	Cys	Gly	Arg	Ile	Pro	Gln
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Val	Phe	Leu	Lys	Gln	Ile	Glu	Lys	Thr	Met	Lys	Arg	Ala	Tyr	Glu	Lys
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His	Val	Ile	Ile	His	Val	Gly	Pro	Asn	Gln	Met	His				
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&lt;210&gt; 5589

&lt;211&gt; 1327

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5589

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&lt;210&gt; 5591

&lt;211&gt; 2194

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5591

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<211> 580

<212> PRT

<213> Homo sapiens

<400> 5592

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Thr	Pro	Leu	Pro	Ser	Gly	Asp	Val	Ala	Ala	Thr	Phe	Gln	Phe	Arg	Thr
			35				40					45			
Arg	Trp	Asp	Ser	Asp	Leu	Gln	Arg	Glu	Gly	Val	Ser	His	Tyr	Arg	Leu
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Phe	Pro	Lys	Ala	Leu	Gly	Gln	Leu	Ile	Ser	Lys	Tyr	Ser	Leu	Arg	Glu
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Leu	His	Leu	Ser	Phe	Thr	Gln	Gly	Phe	Trp	Arg	Thr	Arg	Tyr	Trp	Gly
			85					90						95	Pro Phe Leu
Gln	Ala	Pro	Ser	Gly	Ala	Glu	Leu	Trp	Val	Trp	Phe				
			100					105					110		
Gln	Asp	Thr	Val	Thr	Asp	Val	Asp	Lys	Ser	Trp	Arg	Glu	Leu	Ser	Asn
			115				120					125			
Val	Leu	Ser	Gly	Ile	Phe	Cys	Ala	Ser	Leu	Asn	Phe	Ile	Asp	Ser	Thr
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Gln Leu Lys Trp Lys Arg Pro Pro Glu Asn Glu Ala Pro Pro Val Pro						
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Glu Leu Ser Thr Leu Leu Tyr Asn Thr His Pro Tyr Arg Ala Phe Pro						
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Val Leu Leu Leu Asp Thr Val Pro Trp Tyr Leu Arg Leu Tyr Val His						
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Leu Phe Pro Val Ser Asp Gly Ser Asn Tyr Phe Val Arg Leu Tyr Thr						
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Glu Pro Leu Leu Val Asn Leu Pro Thr Pro Asp Phe Ser Met Pro Tyr						
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Phe Tyr Asn Leu Leu Thr Arg Thr Phe His Ile Glu Glu Pro Arg Thr						
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<212> DNA  
<213> Homo sapiens

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<211> 312

<212> PRT

<213> Homo sapiens

<400> 5598

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<211> 923

<212> PRT

<213> Homo sapiens

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Pro	Leu	Gly	Met	Thr	Val	Thr	Phe	Thr	Val	His	Phe	His	Asp	Asn
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Gly	Asp	Val	Phe	His	Ala	His	Ser	Ser	Val	Leu	Asn	Phe	Ala	Thr
					450					455				460
Arg	Asp	Asp	Phe	Val	Gln	Ile	Gly	Lys	Gly	Pro	Thr	Asn	Asn	Thr
					465					470				475
Val	Val	Arg	Thr	Val	Ser	Val	Gly	Leu	Thr	Leu	Leu	Arg	Val	Trp
					485					490				495
Ala	Glu	His	Pro	Gly	Leu	Ser	Asp	Phe	Met	Pro	Leu	Pro	Val	Leu
					500					505				510
Ala	Ile	Ser	Pro	Glu	Leu	Ser	Gly	Ala	Met	Val	Val	Gly	Asp	Val
					515					520				525
Cys	Leu	Ala	Thr	Val	Leu	Thr	Ser	Leu	Glu	Gly	Leu	Ser	Gly	Thr
					530					535				540
Ser	Ser	Ser	Ala	Asn	Ser	Ile	Leu	His	Ile	Asp	Pro	Lys	Thr	Gly
					545					550				555
Ala	Val	Ala	Arg	Ala	Val	Gly	Ser	Val	Thr	Val	Tyr	Tyr	Glu	Val
					565					570				575
Gly	His	Leu	Arg	Thr	Tyr	Lys	Glu	Val	Val	Val	Ser	Val	Pro	Gln
					580					585				590
Ile	Met	Ala	Arg	His	Leu	His	Pro	Ile	Gln	Thr	Ser	Phe	Gln	Glu
					595					600				605
Thr	Ala	Ser	Lys	Val	Ile	Val	Ala	Val	Gly	Asp	Arg	Ser	Ser	Asn
					610					615				620
Arg	Gly	Glu	Cys	Thr	Pro	Thr	Gln	Arg	Glu	Val	Ile	Gln	Ala	Leu
					625					630				635
Pro	Glu	Thr	Leu	Ile	Ser	Cys	Gln	Ser	Gln	Phe	Lys	Pro	Ala	Val
					645					650				655
Asp	Phe	Pro	Ser	Gln	Asp	Val	Phe	Thr	Val	Glu	Pro	Gln	Phe	Asp
					660					665				670
Ala	Leu	Gly	Gln	Tyr	Phe	Cys	Ser	Ile	Thr	Met	His	Arg	Leu	Thr
					675					680				685
Lys	Gln	Arg	Lys	His	Leu	Ser	Met	Lys	Lys	Thr	Ala	Leu	Val	Val
					690					695				700
Ala	Ser	Leu	Ser	Ser	Ser	His	Phe	Ser	Thr	Glu	Gln	Val	Gly	Ala
					705					710				715
Val	Pro	Phe	Ser	Pro	Gly	Leu	Phe	Ala	Asp	Gln	Ala	Glu	Ile	Leu
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Ser	Asn	His	Tyr	Thr	Ser	Ser	Glu	Ile	Arg	Val	Phe	Gly	Ala	Pro

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<212> DNA
<213> Homo sapiens
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4786

<210> 5602  
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 <212> PRT  
 <213> Homo sapiens

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 Arg Arg Thr Thr Ala Ser Leu Leu Arg Lys Leu Thr Thr Ala Ser Asn  
 35 40 45  
 Gly Gly Val Ile Glu Glu Leu Ser Cys Val Arg Ser Asn Asn Tyr Val  
 50 55 60  
 Gln Glu Pro Glu Cys Arg Arg Asn Leu Val Gln Cys Leu Leu Glu Lys  
 65 70 75 80  
 Gln Gly Thr Pro Val Val Gln Gly Ser Leu Glu Leu Glu Arg Val Met  
 85 90 95  
 Ser Ser Leu Leu Asp Met Gly Phe Ser Asn Ala His Ile Asn Glu Leu  
 100 105 110  
 Leu Ser Val Arg Arg Gly Ala Ser Leu Gln Gln Leu Leu Asp Ile Ile  
 115 120 125  
 Ser Glu Phe Ile Leu Leu Gly Leu Asn Pro Glu Pro Val Cys Val Val  
 130 135 140  
 Leu Lys Lys Ser Pro Gln Leu Leu Lys Leu Pro Ile Met Gln Met Arg  
 145 150 155 160  
 Lys Arg Ser Ser Tyr Leu Gln Lys Leu Gly Leu Gly Glu Gly Lys Leu  
 165 170 175  
 Lys Arg Val Leu Tyr Cys Cys Pro Glu Ile Phe Thr Met Arg Gln Gln  
 180 185 190  
 Asp Ile Asn Asp Thr Val Arg Leu Leu Lys Glu Lys Cys Leu Phe Thr  
 195 200 205  
 Val Pro Leu His Ala  
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<210> 5603  
 <211> 2070  
 <212> DNA  
 <213> Homo sapiens

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 120  
 catgatggag acccttcaaa tttgcttatg ttctttttca gcctatagac cagatataat  
 180  
 aattagcttt tcttctcttg cagattccag agagtcctct atttcatatg tgccttccag  
 240  
 aacatctctt gtggtattca ctacttggct tctgtgttca tgggagtcac ccctcatcat  
 300  
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ttggaggaca ccggggccct gttgtcttca ggccagaaag attatgttac ggtgcagttg  
420  
cagaatggtg agatctggga gctctcaagg thtagcagga ataagaggga gaacacatcg  
480  
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720  
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960  
cagatgatcc tctccacagt gactgtcccc tttatectgt gctgttgggt gctcccagag  
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1080  
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1980

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 <212> PRT  
 <213> Homo sapiens

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 20 25 30  
 His Val Cys Arg Pro Pro Gly Asn Val Ser Gln Val Val Phe His Asn  
 35 40 45  
 His Ser Asn Trp Ser Leu Glu Asp Thr Gly Ala Leu Leu Ser Ser Gly  
 50 55 60  
 Gln Lys Asp Tyr Val Thr Val Gln Leu Gln Asn Gly Glu Ile Trp Glu  
 65 70 75 80  
 Leu Ser Arg Cys Ser Arg Asn Lys Arg Glu Asn Thr Ser Ser Leu Gly  
 85 90 95  
 Tyr Glu Tyr Thr Gly Ser Lys Lys Glu Phe Pro Cys Val Asp Gly Tyr  
 100 105 110  
 Ile Tyr Asp Gln Asn Thr Trp Lys Ser Thr Ala Val Thr Gln Trp Asn  
 115 120 125  
 Leu Val Cys Asp Arg Lys Trp Leu Ala Met Leu Ile Gln Pro Leu Phe  
 130 135 140  
 Met Phe Gly Val Leu Leu Gly Ser Val Thr Phe Gly Tyr Phe Ser Asp  
 145 150 155 160  
 Arg Leu Gly Arg Arg Val Val Leu Trp Ala Thr Ser Ser Ser Met Phe  
 165 170 175  
 Leu Phe Gly Ile Ala Ala Ala Phe Ala Val Asp Tyr Tyr Thr Phe Met  
 180 185 190  
 Ala Ala Arg Phe Phe Leu Ala Met Val Ala Ser Gly Tyr Leu Val Val  
 195 200 205  
 Gly Phe Val Tyr Val Met Glu Phe Ile Gly Met Lys Ser Arg Thr Trp  
 210 215 220  
 Ala Ser Val His Leu His Ser Phe Phe Ala Val Gly Thr Leu Leu Val  
 225 230 235 240  
 Ala Leu Thr Gly Tyr Leu Val Arg Thr Trp Trp Leu Tyr Gln Met Ile  
 245 250 255  
 Leu Ser Thr Val Thr Val Pro Phe Ile Leu Cys Cys Trp Val Leu Pro  
 260 265 270  
 Glu Thr Pro Phe Trp Leu Leu Ser Glu Gly Arg Tyr Glu Glu Ala Gln  
 275 280 285  
 Lys Ile Val Asp Ile Met Ala Lys Trp Asn Arg Ala Ser Ser Cys Lys  
 290 295 300  
 Leu Ser Glu Leu Leu Ser Leu Asp Leu Gln Gly Pro Val Ser Asn Ser  
 305 310 315 320  
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 325 330 335  
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<210> 5605
<211> 376
<212> DNA
<213> Homo sapiens
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<210> 5606
<211> 101
<212> PRT
<213> Homo sapiens
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&lt;400&gt; 5606

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Ala His Pro Cys Arg Ala Leu Ala Leu Thr Ala Pro Ile Phe Leu Leu
      20           25           30
Leu Phe Pro Ser Ser Glu Cys Gly Trp Phe Ser Leu Leu Leu Ser Ser
      35           40           45
Asp Val Pro Ser Ser Ser Leu Glu Arg Pro Pro Trp Met Thr Glu Glu
      50           55           60
Val Thr Thr Thr Ser Ser Arg Ser Thr Pro Arg Pro Ser Val Ser Pro
65           70           75           80
Ser Gln Cys Leu Ala Pro Ser Asn Ile Ala Phe Cys Val Tyr His Gln
      85           90           95
Phe Pro Phe Thr Arg
      100

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&lt;210&gt; 5607

&lt;211&gt; 320

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5607

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ggtttggggcc gacacgcgga aggccgggtg gagcccatcc atgctgtggt gttgcctcga
120
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180
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240
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300
caagccgggc ggcctcagca
320

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&lt;210&gt; 5608

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5608

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Val His Thr Arg Gly Ile Gly Ser Arg Leu Leu Thr Lys Met Gly Tyr
 1           5           10           15
Glu Phe Gly Lys Gly Leu Gly Arg His Ala Glu Gly Arg Val Glu Pro
      20           25           30
Ile His Ala Val Val Leu Pro Arg Gly Lys Ser Leu Asp Gln Cys Val
      35           40           45
Glu Thr Leu Gln Lys Gln Thr Arg Val Gly Lys Ala Gly Thr Asn Lys
      50           55           60
Pro Pro Arg Cys Arg Gly Arg Gly Ala Arg Pro Gly Gly Arg Pro Ala
65           70           75           80
Pro Arg Asn Val Phe Asp Phe Leu Asn Glu Lys Leu Gln Gly Gln Ala
      85           90           95
Pro Gly Ala Leu Gln Ala Gly Arg Pro Gln

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100

105

<210> 5609  
<211> 1843  
<212> DNA  
<213> Homo sapiens

&lt;400&gt; 5609

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240  
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300  
gttattgtaa ttctgaatgt actcatcgtg tttctcactt ctacagaagc atcctcagtg  
360  
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420  
cacaacccta tctagccaaa ccagaagaa cgcaggcgtt tacacaactt ttctcggaca  
480  
gtcgagaaaa tccaaaagtg ggctttgggc ttaccttaaa taggaatgga atgtaccact  
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600  
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660  
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720  
cagggatgct ctgcagccag cgggcggatg acctgaggtc gggcctgggc ctgtcccttt  
780  
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atgcagttcc agagtgcaaa tggcttgcac atgtgcagtt ttacaggtg gaaggcaaga  
900  
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960  
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1080  
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1320  
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1380

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1843

&lt;210&gt; 5610

&lt;211&gt; 153

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5610

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			20					25						30	
Phe	Thr	Gly	Gly	Arg	Gln	Asp	His	Thr	Ser	Leu	Pro	His	Trp	Ala	Cys
		35					40						45		
Leu	Leu	Val	Asp	Ser	Cys	Met	Gln	Glu	Ala	Val	Met	Gly	Ser	Leu	Arg
	50					55					60				
Ile	Pro	Gln	Cys	Gly	Asn	Gly	Pro	Leu	Arg	Leu	Val	Leu	Arg	Val	Pro
65					70				75						80
Gly	Ala	Gln	Ser	Trp	Val	Gly	Gly	Cys	Trp	Trp	Glu	Val	Arg	Asn	Lys
			85					90						95	
Phe	Trp	Leu	Pro	Ser	Gly	Gln	Leu	Pro	Thr	Ala	Leu	Thr	Trp	Glu	Val
			100					105						110	
Asp	Ala	His	Arg	Gln	Asp	Ala	Leu	Gly	Tyr	Cys	Cys	Thr	Val	Leu	His
		115					120					125			
Glu	Ile	Phe	Ile	Gln	Pro	Thr	Arg	Phe	Asn	Arg	Ser	Leu	Gly	Ser	Ser
	130					135						140			
Ser	Arg	Leu	Leu	Cys	Leu	Phe	Lys	His							
145					150										

&lt;210&gt; 5611

&lt;211&gt; 1152

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5611

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 180  
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 240  
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 300  
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 360  
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 780  
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 1140  
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 1152

&lt;210&gt; 5612

&lt;211&gt; 289

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5612

Met	Lys	Val	Leu	Gly	Arg	Ser	Phe	Phe	Trp	Val	Leu	Phe	Pro	Val	Leu
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Pro	Trp	Ala	Val	Gln	Ala	Val	Glu	His	Glu	Glu	Val	Ala	Gln	Arg	Val
			20					25					30		
Ile	Lys	Leu	His	Arg	Gly	Arg	Gly	Val	Ala	Ala	Met	Gln	Ser	Arg	Gln
			35				40					45			
Trp	Val	Arg	Asp	Ser	Cys	Arg	Lys	Leu	Ser	Gly	Leu	Leu	Arg	Gln	Lys
			50			55					60				
Asn	Ala	Val	Leu	Asn	Lys	Leu	Lys	Thr	Ala	Ile	Gly	Ala	Val	Glu	Lys
65				70				75						80	
Asp	Val	Gly	Leu	Ser	Asp	Glu	Glu	Lys	Leu	Phe	Gln	Val	His	Thr	Phe

				85					90					95					
Glu	Ile	Phe	Gln	Lys	Glu	Leu	Asn	Glu	Ser	Glu	Asn	Ser	Val	Phe	Gln				
			100					105					110						
Ala	Val	Tyr	Gly	Leu	Gln	Arg	Ala	Leu	Gln	Gly	Asp	Tyr	Lys	Asp	Val				
		115					120					125							
Val	Asn	Met	Lys	Glu	Ser	Ser	Arg	Gln	Arg	Leu	Glu	Ala	Leu	Arg	Glu				
	130					135					140								
Ala	Ala	Ile	Lys	Glu	Glu	Thr	Glu	Tyr	Met	Glu	Leu	Leu	Ala	Ala	Glu				
145					150					155					160				
Lys	His	Gln	Val	Glu	Ala	Leu	Lys	Asn	Met	Gln	His	Gln	Asn	Gln	Ser				
			165					170				175							
Leu	Ser	Met	Leu	Asp	Glu	Ile	Leu	Glu	Asp	Val	Arg	Lys	Ala	Ala	Asp				
		180					185				190								
Arg	Leu	Glu	Glu	Glu	Ile	Glu	Glu	His	Ala	Phe	Asp	Asp	Asn	Lys	Ser				
	195					200					205								
Val	Lys	Gly	Val	Asn	Phe	Glu	Ala	Val	Leu	Arg	Val	Glu	Glu	Glu	Glu				
	210					215					220								
Ala	Asn	Ser	Lys	Gln	Asn	Ile	Thr	Lys	Arg	Glu	Val	Glu	Asp	Asp	Leu				
225					230					235					240				
Val	Leu	Ser	Met	Leu	Ile	Asp	Ser	Gln	Asn	Asn	Gln	Tyr	Ile	Leu	Thr				
			245					250				255							
Lys	Pro	Arg	Asp	Ser	Thr	Ile	Pro	Arg	Ala	Asp	His	His	Phe	Ile	Lys				
		260						265				270							
Asp	Ile	Val	Thr	Ile	Gly	Met	Leu	Ser	Leu	Pro	Cys	Gly	Trp	Arg	Cys				
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Thr

<210> 5613  
 <211> 1679  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 aatgaagctc gtaaattaaa tcaccaggaa gttgtggaag aagataaaag actaaaatta  
 420  
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 600

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 660  
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 720  
 aatagtcttc ttcattggaac acatgtgcct tccacagagg aaattgacag gatggtcata  
 780  
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 840  
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<210> 5614

<211> 242

<212> PRT

<213> Homo sapiens

<400> 5614

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Ser	Leu	Ala	Ala	Ala	Ala	Glu	Leu	Ala	Ala	Gln	Lys	Arg	Glu	Gln	Arg
			20						25				30		
Leu	Arg	Lys	Phe	Arg	Glu	Leu	His	Leu	Met	Arg	Asn	Glu	Ala	Arg	Lys
		35					40					45			
Leu	Asn	His	Gln	Glu	Val	Val	Glu	Glu	Asp	Lys	Arg	Leu	Lys	Leu	Pro
	50						55				60				
Ala	Asn	Trp	Glu	Ala	Lys	Lys	Ala	Arg	Leu	Glu	Trp	Glu	Leu	Lys	Glu
65					70					75				80	
Glu	Glu	Lys	Lys	Lys	Glu	Cys	Ala	Ala	Arg	Gly	Glu	Asp	Tyr	Glu	Lys

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180
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240
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300
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360
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420
gcaatttccc tttctgagcc tcgtatgctg tggggggtcag atccctatcc tcatgctgag
480
cctcaacaag caactactcc caaagcaaca gaagagcctg aggatgtaag gtctgaagct
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600
cacccaaagg cagactttat cagagaatca agtgaggcac aagtacaaaa gtttttaage
660
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720
gaagcacctg atcaaaaagac cttatccact cctcaagagg agcggatttc agctgtagaa
780

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 960  
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 1020  
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 1080  
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 1380  
 cctgcagtta agactgtaaa ccaacagact atggcagcac cagtagtcaa agaaaaagaa  
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<210> 5616

<211> 507

<212> PRT

<213> Homo sapiens

<400> 5616

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Pro	Arg	Phe	Gln	Arg	Gln	Gln	Glu	Gln	Met	Lys	Gln	Gln	Gln	Trp	Gln
			20					25						30	
Gln	Gln	Gln	Gln	Gln	Gly	Val	Leu	Pro	Gln	Thr	Val	Pro	Ser	Gln	Pro
			35				40						45		
Ser	Ser	Ser	Thr	Val	Pro	Pro	Pro	Pro	His	Arg	Pro	Leu	Tyr	Gln	Pro
	50					55					60				
Met	Gln	Pro	His	Pro	Gln	His	Leu	Ala	Ser	Met	Gly	Phe	Asp	Pro	Arg
65					70					75					80
Trp	Leu	Met	Met	Gln	Ser	Tyr	Met	Asp	Pro	Arg	Met	Met	Ser	Gly	Arg
				85					90					95	
Pro	Ala	Met	Asp	Ile	Pro	Pro	Ile	His	Pro	Gly	Met	Ile	Pro	Pro	Lys
				100				105					110		
Pro	Leu	Met	Arg	Arg	Asp	Gln	Met	Glu	Gly	Ser	Pro	Asn	Ser	Ser	Glu
		115					120					125			
Ser	Phe	Glu	His	Ile	Ala	Arg	Ser	Ala	Arg	Asp	His	Ala	Ile	Ser	Leu
						135						140			
Ser	Glu	Pro	Arg	Met	Leu	Trp	Gly	Ser	Asp	Pro	Tyr	Pro	His	Ala	Glu
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Pro	Gln	Gln	Ala	Thr	Thr	Pro	Lys	Ala	Thr	Glu	Glu	Pro	Glu	Asp	Val

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120
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tgtttgtgtt ttcagccagt gcacaaagac tctattagcc ttttcatggc acatgttcac  
240  
accactgtaa atgaaatgag taccagatat taccagaatg agagaagaca caactatacc  
300  
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360  
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420  
gcctctcagg tgggagatct aaaagccaga cttgcctctc aagaagccga gctgcaactg  
480  
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660  
gctacagctg cactcaatac actcaacagg gtcaacctca gtgagctgaa agcctttccc  
720  
aaccctccca tcgcagttac caatgttact gcagccgtga tggtccttct ggctcctcgg  
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3180  
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3360

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<210> 5618

<211> 1003

<212> PRT

<213> Homo sapiens

<400> 5618

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			20					25					30		
Thr	Thr	Pro	Lys	Ser	Phe	Leu	Glu	Gln	Ile	Ser	Leu	Phe	Lys	Asn	Leu
		35					40					45			
Leu	Lys	Lys	Lys	Gln	Asn	Glu	Val	Ser	Glu	Lys	Lys	Glu	Arg	Leu	Val
	50					55					60				
Asn	Gly	Ile	Gln	Lys	Leu	Lys	Thr	Thr	Ala	Ser	Gln	Val	Gly	Asp	Leu
65					70					75					80
Lys	Ala	Arg	Leu	Ala	Ser	Gln	Glu	Ala	Glu	Leu	Gln	Leu	Arg	Asn	His
				85				90						95	
Asp	Ala	Glu	Ala	Leu	Ile	Thr	Lys	Ile	Gly	Leu	Gln	Thr	Glu	Lys	Val
			100					105					110		
Ser	Arg	Glu	Lys	Thr	Ile	Ala	Asp	Ala	Glu	Glu	Arg	Lys	Val	Thr	Ala
		115					120					125			
Ile	Gln	Thr	Glu	Val	Phe	Gln	Lys	Gln	Arg	Glu	Cys	Glu	Ala	Asp	Leu
	130					135					140				
Leu	Lys	Ala	Glu	Pro	Ala	Leu	Val	Ala	Ala	Thr	Ala	Ala	Leu	Asn	Thr
145					150					155					160
Leu	Asn	Arg	Val	Asn	Leu	Ser	Glu	Leu	Lys	Ala	Phe	Pro	Asn	Pro	Pro
				165					170					175	
Ile	Ala	Val	Thr	Asn	Val	Thr	Ala	Ala	Val	Met	Val	Leu	Leu	Ala	Pro
		180					185						190		
Arg	Gly	Arg	Val	Pro	Lys	Asp	Arg	Ser	Trp	Lys	Ala	Ala	Lys	Val	Phe
	195						200					205			
Met	Gly	Lys	Val	Asp	Asp	Phe	Leu	Gln	Ala	Leu	Ile	Asn	Tyr	Asp	Lys
	210				215						220				
Glu	His	Ile	Pro	Glu	Asn	Cys	Leu	Lys	Val	Val	Asn	Glu	His	Tyr	Leu
225					230					235					240
Lys	Asp	Pro	Glu	Phe	Asn	Pro	Asn	Leu	Ile	Arg	Thr	Lys	Ser	Phe	Ala
				245					250					255	
Ala	Ala	Gly	Leu	Cys	Ala	Trp	Val	Ile	Asn	Ile	Ile	Lys	Phe	Tyr	Glu
		260						265					270		
Val	Tyr	Cys	Asp	Val	Glu	Pro	Lys	Arg	Gln	Ala	Leu	Ala	Gln	Ala	Asn
	275						280					285			
Leu	Glu	Leu	Ala	Ala	Ala	Thr	Glu	Lys	Leu	Glu	Ala	Ile	Arg	Lys	Lys
	290					295					300				
Leu	Val	Val	Ser	Ala	Asn	Tyr	Asp	Ile	Glu	Lys	Ser	Glu	Lys	Ile	Arg
305					310					315					320
Trp	Gly	Gln	Ser	Ile	Lys	Ser	Phe	Glu	Ala	Gln	Glu	Lys	Thr	Leu	Cys
				325					330					335	
Gly	Asp	Val	Leu	Leu	Thr	Ala	Ala	Phe	Val	Ser	Tyr	Val	Gly	Pro	Phe

			340					345					350				
Thr	Arg	Gln	Tyr	Arg	Gln	Glu	Leu	Val	His	Cys	Lys	Trp	Val	Pro	Phe		
		355					360					365					
Leu	Gln	Gln	Lys	Val	Ser	Ile	Pro	Leu	Thr	Glu	Gly	Leu	Asp	Leu	Ile		
	370					375					380						
Ser	Met	Leu	Thr	Asp	Asp	Ala	Thr	Ile	Ala	Ala	Trp	Asn	Asn	Glu	Gly		
385					390					395					400		
Leu	Pro	Ser	Asp	Arg	Met	Ser	Thr	Glu	Asn	Ala	Ala	Ile	Leu	Thr	His		
				405					410						415		
Cys	Glu	Arg	Trp	Pro	Leu	Val	Ile	Asp	Pro	Gln	Gln	Gln	Gly	Ile	Lys		
		420						425					430				
Trp	Ile	Lys	Asn	Lys	Tyr	Gly	Met	Asp	Leu	Lys	Val	Thr	His	Leu	Gly		
	435					440						445					
Gln	Lys	Gly	Phe	Leu	Asn	Ala	Ile	Glu	Thr	Ala	Leu	Ala	Phe	Gly	Asp		
	450					455					460						
Val	Ile	Leu	Ile	Glu	Asn	Leu	Glu	Glu	Thr	Ile	Asp	Pro	Val	Leu	Asp		
465					470					475					480		
Pro	Leu	Leu	Gly	Arg	Asn	Thr	Ile	Lys	Lys	Gly	Lys	Tyr	Ile	Arg	Ile		
				485					490						495		
Gly	Asp	Lys	Glu	Cys	Glu	Phe	Asn	Lys	Asn	Phe	Arg	Leu	Ile	Leu	His		
		500						505					510				
Thr	Lys	Leu	Ala	Asn	Pro	His	Tyr	Lys	Pro	Glu	Leu	Gln	Ala	Gln	Thr		
	515						520					525					
Thr	Leu	Leu	Asn	Phe	Thr	Val	Thr	Glu	Asp	Gly	Leu	Glu	Ala	Gln	Leu		
	530					535					540						
Leu	Ala	Glu	Val	Val	Ser	Ile	Glu	Arg	Pro	Asp	Leu	Glu	Lys	Leu	Lys		
545					550					555					560		
Leu	Val	Leu	Thr	Lys	His	Gln	Asn	Asp	Phe	Lys	Ile	Glu	Leu	Lys	Tyr		
				565					570						575		
Leu	Glu	Asp	Asp	Leu	Leu	Leu	Arg	Leu	Ser	Ala	Ala	Glu	Gly	Ser	Phe		
		580					585					590					
Leu	Asp	Asp	Thr	Lys	Leu	Val	Glu	Arg	Leu	Glu	Ala	Thr	Lys	Thr	Thr		
	595						600					605					
Val	Ala	Glu	Ile	Glu	His	Lys	Val	Ile	Glu	Ala	Lys	Glu	Asn	Glu	Arg		
	610					615					620						
Lys	Ile	Asn	Glu	Ala	Arg	Glu	Cys	Tyr	Arg	Pro	Val	Ala	Ala	Arg	Ala		
625					630					635					640		
Ser	Leu	Leu	Tyr	Phe	Val	Ile	Asn	Asp	Leu	Gln	Lys	Ile	Asn	Pro	Leu		
				645					650						655		
Tyr	Gln	Phe	Ser	Leu	Lys	Ala	Phe	Asn	Val	Leu	Phe	His	Arg	Ala	Ile		
		660						665					670				
Glu	Gln	Ala	Asp	Lys	Val	Glu	Asp	Met	Gln	Gly	Arg	Ile	Ser	Ile	Leu		
	675						680					685					
Met	Glu	Ser	Ile	Thr	His	Ala	Val	Phe	Leu	Tyr	Thr	Ser	Gln	Ala	Leu		
	690					695						700					
Phe	Glu	Lys	Asp	Lys	Leu	Thr	Phe	Leu	Ser	Gln	Met	Ala	Phe	Gln	Ile		
705					710					715					720		
Leu	Leu	Arg	Lys	Lys	Glu	Ile	Asp	Pro	Leu	Glu	Leu	Asp	Phe	Leu	Leu		
				725					730						735		
Arg	Phe	Thr	Val	Glu	His	Thr	His	Leu	Ser	Pro	Val	Asp	Phe	Leu	Thr		
		740						745					750				
Ser	Gln	Ser	Trp	Ser	Ala	Ile	Lys	Ala	Ile	Ala	Val	Met	Glu	Glu	Phe		
	755						760					765					
Arg	Gly	Ile	Asp	Arg	Asp	Val	Glu	Gly	Ser	Ala	Lys	Gln	Trp	Arg	Lys		

770		775		780
Trp Val Glu Ser Glu Cys Pro Glu Lys Glu Lys Leu Pro Gln Glu Trp				
785		790		800
Lys Lys Lys Ser Leu Ile Gln Lys Leu Ile Leu Leu Arg Ala Met Arg				
	805		810	815
Pro Asp Arg Met Thr Tyr Ala Leu Arg Asn Phe Val Glu Glu Lys Leu				
	820		825	830
Gly Ala Lys Tyr Val Glu Arg Thr Arg Leu Asp Leu Val Lys Ala Phe				
	835		840	845
Glu Glu Ser Ser Pro Ala Thr Pro Ile Phe Phe Ile Leu Ser Pro Gly				
	850		855	860
Val Asp Ala Leu Lys Asp Leu Glu Ile Leu Gly Lys Arg Leu Gly Phe				
	865		870	875
Thr Ile Asp Ser Gly Lys Phe His Asn Val Ser Leu Gly Gln Gly Gln				
	885		890	895
Glu Thr Val Ala Glu Val Ala Leu Glu Lys Ala Ser Lys Gly Gly His				
	900		905	910
Trp Val Ile Leu Gln Asn Val His Leu Val Ala Lys Trp Leu Gly Thr				
	915		920	925
Leu Glu Lys Leu Leu Glu Arg Phe Ser Gln Gly Ser His Arg Asp Tyr				
	930		935	940
Arg Val Phe Met Ser Ala Glu Ser Ala Pro Thr Pro Asp Glu His Ile				
	945		950	955
Ile Pro Gln Gly Leu Leu Glu Asn Ser Ile Lys Ile Thr Asn Glu Pro				
	965		970	975
Pro Thr Gly Met Leu Ala Asn Leu His Ala Ala Leu Tyr Asn Phe Asp				
	980		985	990
Gln Val Arg Lys Arg Ser Arg Leu Gly Arg Gln				
	995		1000	

&lt;210&gt; 5619

&lt;211&gt; 1219

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5619

aagccggaga gctggagctt tgaagccacc ccggtcaaag gatgctgagt ccggagcgcc  
60

tagccctacc ggactacgag tatctggctc agcgacatgt cctcacctac atggaggatg  
120

cagtgtgcca gctgctagaa aacaggggaag atattagcca atatggaatt gccaggttct  
180

tcactgaata ttttaacagt gtatgccagg gaacacacat tctctttcga gaattcagct  
240

tcgtccaagc cccccccac aatagggtat cattttttacg ggccttctgg agatgcttcc  
300

gaactgtggg caaaaatggc gatttgctga ccatgaaaga atatcactgt ttgctgcaat  
360

tactgtgtcc tgatttcccg ctggagctca ctcagaaagc agccaggatt gtgctcatgg  
420

acgatgccat ggactgcttg atgtcttttt cagatttcct ctttgccttc cagatccagt  
480

tttactactc agaattcctg gacagtgtgg ctgccatcta tgaggacctg ctgtcaggca  
540



agaaccccaa cacagtgatt gtgccgacgt cgtccagtgg gcagcaccgc caacgacctg  
 600  
 ccttggggcgg ggccggcacg ctggagggcg tggaggcgtc gctgttctac cagtgtcttg  
 660  
 aaaacctgtg tgatcggcac aagtacagct gcccaccccc agcacttgtc aaagaggccc  
 720  
 tcagcaatgt tcagagactg accttctatg gattcctcat ggctctctca aagcacctg  
 780  
 gaatcaacca agccctcggg aagtcagagc taagcagccg tcagcctctc ctgccgcaca  
 840  
 acacagggag cagctggcct ctgttagcaa cacggctcca gaggggaagg ggcacacca  
 900  
 tctctgcctt gacttcccag ggccggactc aatcccaggg agcaggaata tggcgacaaa  
 960  
 acatggctct tacacattcc catggtaggg gacagccctc cctgcctgca gccctgcccc  
 1020  
 aacatgaaac cacctcccca tagcagaagc gccagcccc tcctcagaga accccagctc  
 1080  
 tgctttgggg agcagcctgc aggtcgggca gacacaggac tatttactca gtgacgctag  
 1140  
 agattatata tcagagagac ctgaatccca tttataaaca aggcaaaggt gtgtctgcgg  
 1200  
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 1219

<210> 5620

<211> 333

<212> PRT

<213> Homo sapiens

<400> 5620

Met	Leu	Ser	Pro	Glu	Arg	Leu	Ala	Leu	Pro	Asp	Tyr	Glu	Tyr	Leu	Ala
1				5				10						15	
Gln	Arg	His	Val	Leu	Thr	Tyr	Met	Glu	Asp	Ala	Val	Cys	Gln	Leu	Leu
			20					25					30		
Glu	Asn	Arg	Glu	Asp	Ile	Ser	Gln	Tyr	Gly	Ile	Ala	Arg	Phe	Phe	Thr
		35					40					45			
Glu	Tyr	Phe	Asn	Ser	Val	Cys	Gln	Gly	Thr	His	Ile	Leu	Phe	Arg	Glu
	50					55					60				
Phe	Ser	Phe	Val	Gln	Ala	Thr	Pro	His	Asn	Arg	Val	Ser	Phe	Leu	Arg
65					70				75					80	
Ala	Phe	Trp	Arg	Cys	Phe	Arg	Thr	Val	Gly	Lys	Asn	Gly	Asp	Leu	Leu
				85					90					95	
Thr	Met	Lys	Glu	Tyr	His	Cys	Leu	Leu	Gln	Leu	Leu	Cys	Pro	Asp	Phe
			100					105					110		
Pro	Leu	Glu	Leu	Thr	Gln	Lys	Ala	Ala	Arg	Ile	Val	Leu	Met	Asp	Asp
		115					120					125			
Ala	Met	Asp	Cys	Leu	Met	Ser	Phe	Ser	Asp	Phe	Leu	Phe	Ala	Phe	Gln
	130					135					140				
Ile	Gln	Phe	Tyr	Tyr	Ser	Glu	Phe	Leu	Asp	Ser	Val	Ala	Ala	Ile	Tyr
145					150				155					160	
Glu	Asp	Leu	Leu	Ser	Gly	Lys	Asn	Pro	Asn	Thr	Val	Ile	Val	Pro	Thr
				165					170					175	
Ser	Ser	Ser	Gly	Gln	His	Arg	Gln	Arg	Pro	Ala	Leu	Gly	Gly	Ala	Gly

			180					185					190			
Thr	Leu	Glu	Gly	Val	Glu	Ala	Ser	Leu	Phe	Tyr	Gln	Cys	Leu	Glu	Asn	
		195					200					205				
Leu	Cys	Asp	Arg	His	Lys	Tyr	Ser	Cys	Pro	Pro	Pro	Ala	Leu	Val	Lys	
	210					215					220					
Glu	Ala	Leu	Ser	Asn	Val	Gln	Arg	Leu	Thr	Phe	Tyr	Gly	Phe	Leu	Met	
225					230					235					240	
Ala	Leu	Ser	Lys	His	Arg	Gly	Ile	Asn	Gln	Ala	Leu	Gly	Lys	Ser	Glu	
			245					250						255		
Leu	Ser	Ser	Arg	Gln	Pro	Leu	Leu	Pro	His	Asn	Thr	Gly	Ser	Ser	Trp	
		260						265					270			
Pro	Leu	Leu	Ala	Thr	Arg	Leu	Gln	Arg	Gly	Arg	Gly	Ile	Thr	Ile	Ser	
	275						280					285				
Ala	Leu	Thr	Ser	Gln	Gly	Arg	Thr	Gln	Ser	Gln	Gly	Ala	Gly	Ile	Trp	
	290					295					300					
Arg	Gln	Asn	Met	Ala	Leu	Thr	His	Ser	His	Gly	Arg	Gly	Gln	Pro	Ser	
305					310					315					320	
Leu	Pro	Ala	Ala	Leu	Pro	Gln	His	Glu	Thr	Thr	Ser	Pro				
			325					330								

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<210> 5621
<211> 456
<212> DNA
<213> Homo sapiens
```

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<400> 5621
tttttgtgaa atagaattta ttgtggctct gattatgtac acgtgagatg gcctggctgg
60
gccggccggg ctcacatggg ttgtacaata aatacatctg tggggcgggc tctccgcagc
120
cgggaagggc caccgccacg gttcagtcga gcttccgggc tcccagcttc atggggccct
180
tgggcacctt cctctcggcg cgtttggcct ccattctccg ccgcgcgtcc tcgcgcttct
240
tccgggccag ctcagccttg acctgtcctg ggtgctggga cgtgcagaca gggtagcgaa
300
ggggtcgccc ttgtcgctgg actctgggac accccagtta tactcgctgg ccagccgtgt
360
accgtcagga ggtggctcct gggagcttgg ctgaaccctg ggcggtggcc cttcccggct
420
gcggagagcc cgccccacag atgtatttat tgtaca
456

```

```
<210> 5622
<211> 82
<212> PRT
<213> Homo sapiens
```

```
<400> 5622
Met Ala Trp Leu Gly Arg Pro Gly Ser His Gly Leu Tyr Asn Lys Tyr
  1              5              10              15
Ile Cys Gly Ala Gly Ser Pro Gln Pro Gly Arg Ala Thr Ala Thr Val
      20              25              30
Gln Ser Ser Phe Arg Ala Pro Ser Phe Met Gly Pro Leu Ala Thr Phe
```

```

          35          40          45
Leu Ser Ala Arg Leu Ala Ser Ile Ser Arg Arg Arg Ser Ser Arg Phe
      50          55          60
Phe Arg Ala Ser Ser Ala Leu Thr Cys Pro Gly Cys Trp Asp Val Gln
65          70          75          80
Thr Gly

```

<210> 5623  
 <211> 357  
 <212> DNA  
 <213> Homo sapiens

<400> 5623  
 nctggaagaa ctcgtcatgc tctttgtagc gtggtgcttc tgttgctcac aggacaactt  
 60  
 gcctttgatg attttcaaga gagttgtgct atgatgtggc aaaagtatgc aggaagcagg  
 120  
 cggatcaatgc ctctgggagc aaggatcctt ttccacggtg tgttctatgc cgggggcttt  
 180  
 gccattgtgt attacctcat tcaaaagttt cattccaggg ctttatatta caagttggca  
 240  
 gtggagcagc tgcagagcca tcccgaggca caggaagctc tgggccctcc tctcaacatc  
 300  
 cattatctca agctcatcga cagggaacac ttcgtggaca ttgttgatgc caagttg  
 357

<210> 5624  
 <211> 88  
 <212> PRT  
 <213> Homo sapiens

<400> 5624  
 Met Trp Gln Lys Tyr Ala Gly Ser Arg Arg Ser Met Pro Leu Gly Ala  
 1 5 10 15  
 Arg Ile Leu Phe His Gly Val Phe Tyr Ala Gly Gly Phe Ala Ile Val  
 20 25 30  
 Tyr Tyr Leu Ile Gln Lys Phe His Ser Arg Ala Leu Tyr Tyr Lys Leu  
 35 40 45  
 Ala Val Glu Gln Leu Gln Ser His Pro Glu Ala Gln Glu Ala Leu Gly  
 50 55 60  
 Pro Pro Leu Asn Ile His Tyr Leu Lys Leu Ile Asp Arg Glu Asn Phe  
 65 70 75 80  
 Val Asp Ile Val Asp Ala Lys Leu  
 85

<210> 5625  
 <211> 1017  
 <212> DNA  
 <213> Homo sapiens

<400> 5625  
 gccgactcgt ggtacctggc gcttctgggc ttcgctgagc acttccgcac ttccagcccg  
 60

cccaaaatcc gcctgtgcgt gcactgcctg caggccgtgt tccccctcaa gccgcccag  
 120  
 cgcacgcagg cccgtacaca cctgcagctg ggctccgttc tctatcacca caccaagaac  
 180  
 agcgagcagg cgcgcagcca cctggagaag gcgtgggtga tatcacagca aatcccacag  
 240  
 ttcgaagatg ttaaatttga agcagcaagt ctgttgctctg aattgtactg tcaagagaat  
 300  
 tccgttgatg cagcaaagcc gctgctgcgg aaggcgatcc agatctcaca gcagacccca  
 360  
 tattggcact gccgcctgct cttccagctc gctcaactgc acacgcttga gaaggacctg  
 420  
 gtgtcggcct gtgacctcct ggggtgtaggg gccgagtagc cccgggtggg gggatctgaa  
 480  
 tacacacggg cgctgttcct cctcagcaag gggatgctgc tgctgatgga gcgaaagctg  
 540  
 caggaggtgc acccgctgct gaccctctgc gggcagatcg tggagaactg gcaggggaac  
 600  
 cccatccaga aggagtcgct gcgtgtcttc ttctgggtgc tccaggtcac ccactatctg  
 660  
 gatgccgggc aggtgaagag cgtgaagccg tgtctgaagc agctgcagca gtgcatccag  
 720  
 accatctcca cactgcacga tgatgagatc ctgcccagca acccgctga cctcttccac  
 780  
 tggctgccc aaggagcacat gtgtgtgctt gtctacctgg tgactgtgat gcactccatg  
 840  
 caggccggct acctggagaa ggcgcagaag tacacggaca aggcctcat gcagctggag  
 900  
 aagctcaaga tgctggactg cagccccatc ctgtcatcct tccaagtgat cctgctggag  
 960  
 cacatcatca tgtgccgcct tgtcacgggt cacaaggcca cggcgctgca ggagatc  
 1017

&lt;210&gt; 5626

&lt;211&gt; 339

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5626

Ala	Asp	Ser	Trp	Tyr	Leu	Ala	Leu	Leu	Gly	Phe	Ala	Glu	His	Phe	Arg
1				5					10					15	
Thr	Ser	Ser	Pro	Pro	Lys	Ile	Arg	Leu	Cys	Val	His	Cys	Leu	Gln	Ala
			20					25					30		
Val	Phe	Pro	Phe	Lys	Pro	Pro	Gln	Arg	Ile	Glu	Ala	Arg	Thr	His	Leu
		35					40					45			
Gln	Leu	Gly	Ser	Val	Leu	Tyr	His	His	Thr	Lys	Asn	Ser	Glu	Gln	Ala
	50					55					60				
Arg	Ser	His	Leu	Glu	Lys	Ala	Trp	Leu	Ile	Ser	Gln	Gln	Ile	Pro	Gln
65					70				75					80	
Phe	Glu	Asp	Val	Lys	Phe	Glu	Ala	Ala	Ser	Leu	Leu	Ser	Glu	Leu	Tyr
			85					90					95		
Cys	Gln	Glu	Asn	Ser	Val	Asp	Ala	Ala	Lys	Pro	Leu	Leu	Arg	Lys	Ala
			100					105					110		
Ile	Gln	Ile	Ser	Gln	Gln	Thr	Pro	Tyr	Trp	His	Cys	Arg	Leu	Leu	Phe

115 120 125  
 Gln Leu Ala Gln Leu His Thr Leu Glu Lys Asp Leu Val Ser Ala Cys  
 130 135 140  
 Asp Leu Leu Gly Val Gly Ala Glu Tyr Ala Arg Val Val Gly Ser Glu  
 145 150 155 160  
 Tyr Thr Arg Ala Leu Phe Leu Leu Ser Lys Gly Met Leu Leu Leu Met  
 165 170 175  
 Glu Arg Lys Leu Gln Glu Val His Pro Leu Leu Thr Leu Cys Gly Gln  
 180 185 190  
 Ile Val Glu Asn Trp Gln Gly Asn Pro Ile Gln Lys Glu Ser Leu Arg  
 195 200 205  
 Val Phe Phe Leu Val Leu Gln Val Thr His Tyr Leu Asp Ala Gly Gln  
 210 215 220  
 Val Lys Ser Val Lys Pro Cys Leu Lys Gln Leu Gln Gln Cys Ile Gln  
 225 230 235 240  
 Thr Ile Ser Thr Leu His Asp Asp Glu Ile Leu Pro Ser Asn Pro Ala  
 245 250 255  
 Asp Leu Phe His Trp Leu Pro Lys Glu His Met Cys Val Leu Val Tyr  
 260 265 270  
 Leu Val Thr Val Met His Ser Met Gln Ala Gly Tyr Leu Glu Lys Ala  
 275 280 285  
 Gln Lys Tyr Thr Asp Lys Ala Leu Met Gln Leu Glu Lys Leu Lys Met  
 290 295 300  
 Leu Asp Cys Ser Pro Ile Leu Ser Ser Phe Gln Val Ile Leu Leu Glu  
 305 310 315 320  
 His Ile Ile Met Cys Arg Leu Val Thr Gly His Lys Ala Thr Ala Leu  
 325 330 335  
 Gln Glu Ile

&lt;210&gt; 5627

&lt;211&gt; 1401

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5627

nctctcacac tgtggaattc tctctatcag cctcaaagtc cagatttgga aagggagtct  
 60  
 cagcgagggg cagcagctgg cccaacccgg aggcagagcg gcaactgaac tctagccgga  
 120  
 aagagccagg gttatgtgca catgggaggt ggggaggaca ggggctgtat gtgaccctca  
 180  
 catctgttcc tcgcgccccca gatggcttct gctgcctgct ccatggaccc catcgacagc  
 240  
 tttgagctcc tggatctcct gtttgaccgg caggacggca tcctgagaca cgtggagctg  
 300  
 ggcgagggct ggggtcacgt caaggaccag gtccctgcca accccgactc tgacgacttc  
 360  
 ctcagctcca tcctgggctc tggagactca ctgccagct cccactctg gtcccccgaa  
 420  
 ggcagtgata gtggcatctc cgaagacctc cctccgacc ccaggacac ccctccacgc  
 480  
 agcggaaccag ccacctcccc cgccggctgc catcctgccc agcctggcaa ggggacctgc  
 540

ctctcctatc atcctggcaa ctcttgctcc accacaaccc cagggccagt gatccaacaa  
 600  
 cagcatcacc tggggggcctc ctacctcctg cgacctgggg ctgggcactg tcaggagctg  
 660  
 gtgctcaccg aggatgagaa gaagctgctg gctaaagaag gcatcacctt gccactcag  
 720  
 ctgcccctca ctaagtacga ggagcgagtg ctgaaaaaaaa tccgccggaa aatccggaac  
 780  
 aagcagtcgg cgcaagaaag caggaagaag aagaaggaat atatcgatgg cctggagact  
 840  
 cggctcctgtt gctgtccttt gccctcatca tcttcccctc catcagccct tttggcccca  
 900  
 acaaaaccga gagccctggg gactttgcgc ctgtacgagt gttctccaga actttgcaca  
 960  
 acgatgctgc ctcccgctg gctgctgatg ctgtgccagg ctccgaggcc ccaggacccc  
 1020  
 gacccgaggc tgacacaacc cgagaagagt ctccaggaag ccccggggca gactggggct  
 1080  
 tccaggacac cgcgaaacctg accaattcga cggaggagct ggacaacgcc accctggctc  
 1140  
 tgaggaatgc aacagagggg ctggggccagg tcgccctgct ggactgggtg gcgcctgggc  
 1200  
 cgagcactgg ctccaggacgt gcagggctgg aggcggcggg agacgagctg tgagccccac  
 1260  
 caggactatg ctcccaggcc cctctgccca ggggtgcctt ggggatgctg cactgggcag  
 1320  
 ctaccacact ggggatggga cgtgaggcca agaccccagc agagatgcca gaatggggga  
 1380  
 ggcacagctc atagccacac a  
 1401

&lt;210&gt; 5628

&lt;211&gt; 299

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5628

Met	Ala	Ser	Ala	Ala	Cys	Ser	Met	Asp	Pro	Ile	Asp	Ser	Phe	Glu	Leu
1				5				10						15	
Leu	Asp	Leu	Leu	Phe	Asp	Arg	Gln	Asp	Gly	Ile	Leu	Arg	His	Val	Glu
			20				25						30		
Leu	Gly	Glu	Gly	Trp	Gly	His	Val	Lys	Asp	Gln	Val	Leu	Pro	Asn	Pro
		35				40					45				
Asp	Ser	Asp	Asp	Phe	Leu	Ser	Ser	Ile	Leu	Gly	Ser	Gly	Asp	Ser	Leu
	50					55					60				
Pro	Ser	Ser	Pro	Leu	Trp	Ser	Pro	Glu	Gly	Ser	Asp	Ser	Gly	Ile	Ser
65				70				75						80	
Glu	Asp	Leu	Pro	Ser	Asp	Pro	Gln	Asp	Thr	Pro	Pro	Arg	Ser	Gly	Pro
			85					90						95	
Ala	Thr	Ser	Pro	Ala	Gly	Cys	His	Pro	Ala	Gln	Pro	Gly	Lys	Gly	Pro
			100					105						110	
Cys	Leu	Ser	Tyr	His	Pro	Gly	Asn	Ser	Cys	Ser	Thr	Thr	Thr	Pro	Gly
	115						120							125	
Pro	Val	Ile	Gln	Gln	Gln	His	His	Leu	Gly	Ala	Ser	Tyr	Leu	Leu	Arg

```

      130              135              140
Pro Gly Ala Gly His Cys Gln Glu Leu Val Leu Thr Glu Asp Glu Lys
145              150              155              160
Lys Leu Leu Ala Lys Glu Gly Ile Thr Leu Pro Thr Gln Leu Pro Leu
      165              170              175
Thr Lys Tyr Glu Glu Arg Val Leu Lys Lys Ile Arg Arg Lys Ile Arg
      180              185              190
Asn Lys Gln Ser Ala Gln Glu Ser Arg Lys Lys Lys Lys Glu Tyr Ile
      195              200              205
Asp Gly Leu Glu Thr Arg Ser Cys Cys Cys Pro Leu Pro Ser Ser Ser
      210              215              220
Ser Pro Pro Ser Ala Leu Leu Ala Pro Thr Lys Pro Arg Ala Leu Gly
225              230              235              240
Thr Leu Arg Leu Tyr Glu Cys Ser Pro Glu Leu Cys Thr Thr Met Leu
      245              250              255
Pro Pro Ala Trp Leu Leu Met Leu Cys Gln Ala Pro Arg Pro Gln Asp
      260              265              270
Pro Asp Pro Arg Leu Thr Gln Pro Glu Lys Ser Leu Gln Glu Ala Pro
      275              280              285
Gly Gln Thr Gly Ala Ser Arg Thr Pro Arg Thr
      290              295

```

&lt;210&gt; 5629

&lt;211&gt; 428

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5629

```

gtgcacgacc ccactgaatc atcccacaac catggatggg agacacactc agtctccttt
60
aacagaagat aaagctgggg cttacagaga atgtacaact tggcccaggg cacaccagtt
120
agccatcagg ggcagngctg ctattcaggt ctgggactgt gggactccag agcccatggt
180
ttttacgagg atgccatact gccacaatgg atggtgtctt tatctcctga tatatgattg
240
tgtgttggga ggcgtggggg ggcagctgga agaattggaga ggcataattg tggaggatct
300
tccccattc tctgctaccc tctcttggag ctcccagttc catctgagaa attatctact
360
ctgagaaatc gtcacaacac agcatgggtg tgagtgcagt ggcagaagcc tgtgcctggt
420
tgtatggg
428

```

&lt;210&gt; 5630

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5630

```

Met Asp Gly Arg His Thr Gln Ser Pro Leu Thr Glu Asp Lys Ala Gly
  1              5              10              15
Ala Tyr Arg Glu Cys Thr Thr Trp Pro Arg Ala His Gln Leu Ala Ile

```



	20		25		30
Arg Gly Xaa	Ala Ala Ile Gln Val Trp Asp Cys Gly Thr Pro Glu Pro				
	35		40		45
Met Phe Phe Thr Arg Met Pro Tyr Cys His Asn Gly Trp Cys Leu Tyr					
	50		55		60
Leu Leu Ile Tyr Asp Cys Val Leu Gly Gly Val Gly Trp Gln Leu Glu					
65		70		75	80
Glu Trp Arg Gly Ile Phe Val Glu Asp Leu Pro Pro Phe Ser Ala Thr					
	85		90		95
Leu Ser Trp Ser Ser Gln Phe His Leu Arg Asn Tyr Leu Leu					
	100		105		110

&lt;210&gt; 5631

&lt;211&gt; 783

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5631

```

acgcgtgccc agcacatgtg tgcacacgca gatgcaggag agaacacaca ccaccgtctc
60
tttgcacacg tgtgcccctg tccggccccg ggggctcatc tctccttcac ggagagaatt
120
ctttttatta cgagtgaaca gatgaactaa ggtaagcggg tctcagcctt ccgctggtgc
180
agcatctcca cgcagggcct cagccccgtc ctggccttgc ctgaggactg caccatgggt
240
gttccttggg catggaggag gcagcaggaa ggggtgacag gagcaggagc aggtgcaggg
300
cacctcacac cacaggcctc cccacctct gagctgcaa cagccaagac tcctggcgag
360
gccgggagag gaggggtgag agggaaggag ggtctctgtg aaagcaagcc ccacccccag
420
agcagagcag agaccaggt ctgcaaatca caccctcccc ccacgagttc ctcctttgag
480
gccagcagca cccgagggag ggcaggggct gcacagagac cagagaaagg aaaacccac
540
agaagaaaac tcaaagcatc agtcccatgc gtgtctgctg aacgagtga tgggccc aaa
600
ggctcttctc taaaacggc acgcatccat cgcacagggg gccacaggac acggccgggg
660
ccgtctgcgt ctgtgcctgt gcagcccaca ccagtgcagc ccggggccct ctcagacctc
720
accacacgcg tgcccagcac atgtgtgcac acgcagatgc aggagagaac acacaccacc
780
gtc
783

```

&lt;210&gt; 5632

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5632

Met Gly Val Pro Trp Ala Trp Arg Arg Gln Gln Glu Gly Val Thr Gly

1	5	10	15
Ala Gly Ala Gly Ala Gly His Leu Thr Pro Gln Ala Ser Pro Thr Ser			
	20	25	30
Glu Leu Pro Thr Ala Lys Thr Pro Gly Glu Ala Gly Arg Gly Gly Val			
	35	40	45
Arg Gly Lys Glu Gly Leu Cys Glu Ser Lys Pro His Pro Gln Ser Arg			
	50	55	60
Ala Glu Thr Gln Val Cys Lys Ser His Pro Pro Pro Thr Ser Ser Ser			
65	70	75	80
Phe Glu Ala Ser Ser Thr Arg Gly Arg Ala Gly Ala Ala Gln Arg Pro			
	85	90	95
Glu Lys Gly Lys Pro His Arg Arg Lys Leu Lys Ala Ser Val Pro Cys			
	100	105	110
Val Ser Ala Glu Arg Val Asn Gly Pro Lys Gly Ser Ser Leu Gln Thr			
	115	120	125
Ala Arg Ile His Pro Thr Gly Gly His Arg Thr Arg Pro Gly Pro Ser			
	130	135	140
Ala Ser Val Pro Val Gln Pro Thr Pro Val Gln Pro Gly Ala Leu Ser			
145	150	155	160
Asp Leu Thr Thr Arg Val Pro Ser Thr Cys Val His Thr Gln Met Gln			
	165	170	175
Glu Arg Thr His Thr Thr Val			
	180		

&lt;210&gt; 5633

&lt;211&gt; 2181

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5633

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&lt;210&gt; 5634

&lt;211&gt; 289

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5634

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Phe Asn Phe Pro Asp Pro Tyr Ser Lys Val Lys Gln Arg Glu Asn Gly
          35          40          45
Val Ala Leu Arg Cys Phe Pro Gly Val Val Arg Ser Leu Asp Ala Leu
          50          55          60
Gly Trp Glu Glu Arg Gln Leu Ala Leu Val Lys Gly Leu Leu Ala Gly
65          70          75          80
Asn Val Phe Asp Trp Gly Ala Lys Ala Val Ser Ala Val Leu Glu Ser
          85          90          95
Asp Pro Tyr Phe Gly Phe Glu Glu Ala Lys Arg Lys Leu Gln Glu Arg
          100          105          110
Pro Trp Leu Val Asp Ser Tyr Ser Glu Trp Leu Gln Arg Leu Lys Gly
          115          120          125
Pro Pro His Lys Cys Ala Leu Ile Phe Ala Asp Asn Ser Gly Ile Asp
          130          135          140
Ile Ile Leu Gly Val Phe Pro Phe Val Arg Glu Leu Leu Leu Arg Gly
145          150          155          160
Thr Glu Val Ile Leu Ala Cys Asn Ser Gly Pro Ala Leu Asn Asp Val
          165          170          175
Thr His Ser Glu Ser Leu Ile Val Ala Glu Arg Ile Ala Gly Met Asp
          180          185          190
Pro Val Val His Ser Ala Leu Gln Glu Glu Arg Leu Leu Leu Val Gln
          195          200          205
Thr Gly Ser Ser Ser Pro Cys Leu Asp Leu Ser Arg Leu Asp Lys Gly
          210          215          220
Leu Ala Ala Leu Val Arg Glu Arg Gly Ala Asp Leu Val Val Ile Glu
225          230          235          240
Gly Met Gly Arg Ala Val His Thr Asn Tyr His Ala Ala Leu Arg Cys
          245          250          255
Glu Ser Leu Lys Leu Ala Val Ile Lys Asn Ala Trp Leu Ala Glu Arg
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Leu Gly Gly Arg Leu Phe Ser Val Ile Phe Lys Tyr Glu Val Pro Ala
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Glu

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<210> 5635

<211> 614

<212> DNA

<213> Homo sapiens

<400> 5635

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gcactcatca atggtgatga aaacctggcc tgccaaatat atgaaaacaa tcttcagcta
180

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<210> 5636

<211> 204

<212> PRT

<213> Homo sapiens

<400> 5636

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Gly	Lys	Lys	Cys	His	Cys	Leu	Ser	Glu	Lys	Thr	Lys	Gln	Asn	Met	Gly	20	25	30	
Asn	Thr	Thr	Thr	Lys	Phe	Arg	Lys	Ala	Leu	Ile	Asn	Gly	Asp	Glu	Asn	35	40	45	
Leu	Ala	Cys	Gln	Ile	Tyr	Glu	Asn	Asn	Pro	Gln	Leu	Lys	Glu	Ser	Leu	50	55	60	
Asp	Pro	Asn	Thr	Ser	Tyr	Gly	Glu	Pro	Tyr	Gln	His	Asn	Thr	Pro	Leu	65	70	75	80
His	Tyr	Ala	Ala	Arg	His	Gly	Met	Asn	Lys	Ile	Leu	Gly	Asp	Asp	Phe	85	90	95	
Arg	Arg	Ala	Asp	Cys	Leu	Gln	Met	Ile	Leu	Lys	Trp	Lys	Gly	Ala	Lys	100	105	110	
Leu	Asp	Gln	Gly	Glu	Tyr	Glu	Arg	Ala	Ala	Ile	Asp	Ala	Val	Asp	Asn	115	120	125	
Lys	Lys	Asn	Thr	Pro	Leu	His	Tyr	Ala	Ala	Ala	Ser	Gly	Met	Lys	Ala	130	135	140	
Cys	Val	Glu	Lys	His	Gly	Gly	Asp	Leu	Phe	Ala	Glu	Asn	Glu	Asn	Lys	145	150	155	160
Asp	Thr	Pro	Cys	Asp	Cys	Ala	Glu	Lys	Gln	His	His	Lys	Asp	Leu	Ala	165	170	175	
Leu	Asn	Leu	Glu	Ser	Gln	Met	Val	Phe	Ser	Arg	Asp	Pro	Glu	Ala	Glu	180	185	190	
Glu	Ile	Glu	Ala	Glu	Tyr	Ala	Ala	Leu	Asp	Lys	Arg					195	200		

<210> 5637

<211> 825

<212> DNA

<213> Homo sapiens

&lt;400&gt; 5637

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 120  
 ccaggtactc agggccctgc cctcgtggcc ttgtccgctc gccgcgggtg gggctggcac  
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 360  
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 420  
 aatatataat aagagcgatt cccacagccc cacggtgctg gccagcctca caggtgccc  
 480  
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 540  
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 720  
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 825

&lt;210&gt; 5638

&lt;211&gt; 132

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5638

Met	Pro	Cys	Gly	Asn	Arg	Ser	Gln	Asp	Pro	Val	Glu	Asn	Pro	Arg	Cys
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Leu	Asn	Ile	Asn	Lys	Ser	Asp	Ser	His	Ser	Pro	Thr	Val	Leu	Ala	Ser
			20					25					30		
Leu	Thr	Gly	Ala	Arg	Trp	Phe	Cys	Asp	Pro	Ser	Gln	Ala	His	Ala	Pro
		35					40					45			
Leu	Ala	Gly	Arg	Leu	Ala	Arg	Ala	Pro	Leu	Trp	Leu	Ala	Cys	Gly	Asp
	50					55				60					
Thr	Trp	Ala	Leu	Leu	His	Val	Pro	Thr	Arg	Ala	Val	Ala	Gly	Ser	Lys
65					70				75					80	
Glu	Ala	Gln	Pro	Arg	Pro	Ala	Cys	Val	Asp	Pro	Ala	Gly	Leu	Arg	Ala
			85					90					95		
Pro	Glu	Leu	Leu	Thr	Val	Ser	Glu	Pro	Gly	Cys	Pro	Ala	Pro	Arg	Arg
		100						105					110		
Pro	Pro	Ser	Ser	Cys	Pro	Ala	Trp	Asp	Pro	Ser	Ala	Val	Cys	Leu	Leu
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Asn	Gln	Gly	Val												

130

&lt;210&gt; 5639

&lt;211&gt; 2433

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5639

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atttgacatt tcttcttcca catccagtgt atctgacatt tagcgcacat ttgatttgca  
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gcatgaccg gcctgaagta gcggcggaac ggaagtcgct tgtgtatgaa cgcagcggcg  
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 2400  
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 2433

&lt;210&gt; 5640

&lt;211&gt; 540

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5640

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		20					25						30		
Ala	Ser	Ala	Pro	Gln	Glu	Lys	Leu	Ser	Ser	Glu	Val	Glu	Asp	Pro	Pro
		35				40						45			
Pro	Tyr	Leu	Met	Met	Asp	Glu	Leu	Leu	Gly	Arg	Gln	Arg	Lys	Val	Tyr
	50				55					60					
Leu	Glu	Thr	Tyr	Gly	Cys	Gln	Met	Asn	Val	Asn	Asp	Thr	Glu	Ile	Ala
65				70				75					80		
Trp	Ser	Ile	Leu	Gln	Lys	Ser	Gly	Tyr	Leu	Arg	Pro	Val	Thr	Ser	Lys

	85		90		95
Ala Asp Val	Ile Leu Leu Val Thr Cys Ser Ile Arg Glu Lys Ala Glu				
	100		105		110
Gln Thr Ile Trp Asn Arg Leu His Gln Leu Lys Ala Leu Lys Thr Arg					
	115		120		125
Arg Pro Arg Ser Arg Val Pro Leu Arg Ile Gly Ile Leu Gly Cys Met					
	130		135		140
Ala Glu Arg Leu Lys Glu Glu Ile Leu Asn Arg Glu Lys Met Val Asp					
	145		150		155
Ile Leu Ala Gly Pro Asp Ala Tyr Arg Asp Leu Pro Arg Leu Leu Ala					
	165		170		175
Val Ala Glu Ser Gly Gln Gln Ala Ala Asn Val Leu Leu Ser Leu Asp					
	180		185		190
Glu Thr Tyr Ala Asp Val Met Pro Val Gln Thr Ser Ala Ser Ala Thr					
	195		200		205
Ser Ala Phe Val Ser Ile Met Arg Gly Cys Asp Asn Met Cys Ser Tyr					
	210		215		220
Cys Ile Val Pro Phe Thr Arg Gly Arg Glu Arg Ser Arg Pro Ile Ala					
	225		230		235
Ser Ile Leu Glu Glu Val Lys Lys Leu Ser Glu Gln Gly Leu Lys Glu					
	245		250		255
Val Thr Leu Leu Gly Gln Asn Val Asn Ser Phe Arg Asp Asn Ser Glu					
	260		265		270
Val Gln Phe Asn Ser Ala Val Pro Thr Asn Leu Ser Arg Gly Phe Thr					
	275		280		285
Thr Asn Tyr Lys Thr Lys Gln Gly Gly Leu Arg Phe Ala His Leu Leu					
	290		295		300
Asp Gln Val Ser Arg Val Asp Pro Glu Met Arg Ile Arg Phe Thr Ser					
	305		310		315
Pro His Pro Lys Asp Phe Pro Asp Glu Val Leu Gln Leu Ile His Glu					
	325		330		335
Arg Asp Asn Ile Cys Lys Gln Ile His Leu Pro Ala Gln Ser Gly Ser					
	340		345		350
Ser Arg Val Leu Glu Ala Met Arg Arg Gly Tyr Ser Arg Glu Ala Tyr					
	355		360		365
Val Glu Leu Val His His Ile Arg Glu Ser Ile Pro Gly Val Ser Leu					
	370		375		380
Ser Ser Asp Phe Ile Ala Gly Phe Cys Gly Glu Thr Glu Glu Asp His					
	385		390		395
Val Gln Thr Val Ser Leu Leu Arg Glu Val Gln Tyr Asn Met Gly Phe					
	405		410		415
Leu Phe Ala Tyr Ser Met Arg Gln Lys Thr Arg Ala Tyr His Arg Leu					
	420		425		430
Lys Asp Asp Val Pro Glu Glu Val Lys Leu Arg Arg Leu Glu Glu Leu					
	435		440		445
Ile Thr Ile Phe Arg Glu Glu Ala Thr Lys Ala Asn Gln Thr Ser Val					
	450		455		460
Gly Cys Thr Gln Leu Val Leu Val Glu Gly Leu Ser Lys Arg Ser Ala					
	465		470		475
Thr Asp Leu Cys Gly Arg Asn Asp Gly Asn Leu Lys Val Ile Phe Pro					
	485		490		495
Asp Ala Glu Met Glu Asp Val Asn Asn Pro Gly Leu Arg Val Arg Ala					
	500		505		510
Gln Pro Gly Asp Tyr Val Leu Val Lys Ile Thr Xaa Gln Pro Val Leu					

	515		520		525
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			Pro	Leu	
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 <211> 293  
 <212> DNA  
 <213> Homo sapiens

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<210> 5642  
 <211> 87  
 <212> PRT  
 <213> Homo sapiens

<400> 5642  
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 Ser Gly Gly Val Leu Leu Arg Leu Gln Val Gly Glu Glu Val Trp Leu  
 35 40 45  
 Ala Gly Ala Pro Leu Ala Ser Leu Glu Ser Gln Val Arg Arg Ala Asp  
 50 55 60  
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 Ser Pro Leu His Pro Thr Ala  
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 aaagctcaag atctcttaag ggcagtccca agatccagag cagagatgta tgatgacgtc  
 240

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 780  
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 840  
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 900  
 cctgatgtga ccctggggac aaaccaggg acagaagata tccagttccc cattcagaag  
 960  
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 atcatagata agtctgatgt tttttcaaga tttgggatag aaataatcaa atgggcagga  
 1080  
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 1218

&lt;210&gt; 5644

&lt;211&gt; 202

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5644

Trp	Glu	Gln	Asp	Phe	Gly	His	Pro	Val	Ser	Gln	Glu	Ser	Ser	Trp	Ser
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Gln	Glu	Tyr	Ser	Phe	Gly	Pro	Ser	Ala	Val	Leu	Gly	Asp	Phe	Gly	Ser
			20					25					30		
Ser	Arg	Leu	Ile	Glu	Lys	Glu	Cys	Leu	Glu	Lys	Glu	Ser	Arg	Asp	Tyr
		35					40					45			
Asp	Val	Asp	His	Pro	Gly	Glu	Ala	Asp	Ser	Val	Leu	Arg	Gly	Ser	Ser
	50					55					60				
Gln	Val	Gln	Ala	Arg	Gly	Arg	Ala	Leu	Asn	Ile	Val	Asp	Gln	Glu	Gly
65					70					75				80	
Ser	Leu	Leu	Gly	Lys	Gly	Glu	Thr	Gln	Gly	Leu	Leu	Thr	Ala	Lys	Gly
			85					90					95		
Gly	Val	Gly	Lys	Leu	Val	Thr	Leu	Arg	Asn	Val	Ser	Thr	Lys	Lys	Ile

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          100          105          110
Pro Thr Val Asn Arg Ile Thr Pro Lys Thr Gln Gly Thr Asn Gln Ile
          115          120          125
Gln Lys Asn Thr Pro Ser Pro Asp Val Thr Leu Gly Thr Asn Pro Gly
          130          135          140
Thr Glu Asp Ile Gln Phe Pro Ile Gln Lys Ile Pro Leu Gly Leu Asp
145          150          155          160
Leu Lys Asn Leu Arg Leu Pro Arg Arg Lys Met Ser Phe Asp Ile Ile
          165          170          175
Asp Lys Ser Asp Val Phe Ser Arg Phe Gly Ile Glu Ile Ile Lys Trp
          180          185          190
Ala Gly Phe His Thr Ile Lys Leu Asp Tyr
          195          200

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 <211> 156  
 <212> DNA  
 <213> Homo sapiens

<400> 5645  
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 156

<210> 5646  
 <211> 52  
 <212> PRT  
 <213> Homo sapiens

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Ala Gln Arg Cys Pro Gln Ile Ser Phe Pro Ser Pro Arg Gln Glu Asp
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Thr Ser Thr Gly Lys Phe Thr Cys Lys Val Pro Gly Leu Tyr Tyr Phe
          35          40          45
Val Tyr His Ala
          50

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<210> 5647  
 <211> 150  
 <212> DNA  
 <213> Homo sapiens

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 aggcccaagg gggagccagg aatcccagcc attcccggga tccgaggacc caaagggcag  
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 aagggagaac ccggcttacc cggccatccn  
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<210> 5648  
 <211> 50  
 <212> PRT  
 <213> Homo sapiens

<400> 5648  
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 Phe Phe Pro Gly Arg Pro Lys Gly Glu Pro Gly Ile Pro Ala Ile Pro  
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 Gly Ile Arg Gly Pro Lys Gly Gln Lys Gly Glu Pro Gly Leu Pro Gly  
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 His Pro  
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<210> 5649  
 <211> 345  
 <212> DNA  
 <213> Homo sapiens

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 120  
 gacccgagtc tccggcgcag cgcgggcggc ttgctccgct cgcagggtcat ccacagcggc  
 180  
 cacttcatgg tgctcgcgc gcacagcgcac tcgctgcccc ggcggcgcga ccaggagggt  
 240  
 ccgtggggcc ctccgacttc gggccgcgca gtatcgaccc cacactcaca cgctcttcg  
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 agtgcttgag cctggcctac agtggcaagc tggggctctcc caagt  
 345

<210> 5650  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 5650  
 Met Ala Val Ala Ala Thr Ala Trp Ser Leu Gly Ser Arg Pro Ala  
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 Gln Thr Arg Thr Arg Thr Gln Thr Arg Arg Thr Arg Val Ser Gly Ala  
 20 25 30  
 Ala Arg Ala Ala Cys Ser Ala Arg Arg Ser Ser Thr Ala Val Thr Ser  
 35 40 45  
 Trp Cys Arg Arg Arg Thr Ala Thr Arg Cys Pro Gly Gly Ala Thr Arg  
 50 55 60  
 Arg Val Arg Gly Ala Leu Arg Leu Arg Ala Ala Gln Tyr Arg Pro His  
 65 70 75 80  
 Thr His Thr Pro Leu Arg Val Leu Glu Pro Gly Leu Gln Trp Gln Ala  
 85 90 95  
 Gly Val Ser Gln

100

<210> 5651  
 <211> 615  
 <212> DNA  
 <213> Homo sapiens

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 ctcgccatga agagccgctt tagcaccatt gacctccgcg ccgtactcgc ggagctgaat  
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 gctagcttgc taggaatgag agtaaacaat gtttatgatg tggataataa gacatacctt  
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 480  
 agggggaaca ttgttcttac agattatgag tacgtaattt taaatattct aaggtttcga  
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<210> 5652  
 <211> 163  
 <212> PRT  
 <213> Homo sapiens

<400> 5652  
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 Leu Asn Ala Ser Leu Leu Gly Met Arg Val Asn Asn Val Tyr Asp Val  
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 Asp Asn Lys Thr Tyr Leu Ile Arg Leu Gln Lys Pro Asp Phe Lys Ala  
 35 40 45  
 Thr Leu Leu Leu Glu Ser Gly Ile Gln Ile His Thr Thr Glu Phe Glu  
 50 55 60  
 Trp Pro Lys Asn Met Met Pro Ser Ser Phe Ala Met Lys Cys Arg Lys  
 65 70 75 80  
 His Leu Lys Ser Arg Arg Leu Val Ser Ala Lys Gln Leu Gly Val Asp  
 85 90 95  
 Arg Ile Val Asp Phe Gln Phe Gly Ser Asp Glu Ala Ala Tyr His Leu  
 100 105 110  
 Ile Ile Glu Leu Tyr Asp Arg Gly Asn Ile Val Leu Thr Asp Tyr Glu  
 115 120 125  
 Tyr Val Ile Leu Asn Ile Leu Arg Phe Arg Thr Asp Glu Ala Asp Asp



130	135	140
Val Lys Phe Ala Val Arg Glu Arg Tyr Pro Leu Asp His Ala Arg Ala		
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Ala Glu Pro		160

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 <212> DNA  
 <213> Homo sapiens

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<210> 5654  
 <211> 245  
 <212> PRT  
 <213> Homo sapiens

<400> 5654  
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 Tyr Gly Ile Pro Gly Met Pro Gly Leu Pro Gly Ala Pro Gly Lys Asp  
 35 40 45  
 Gly Tyr Asp Gly Leu Pro Gly Pro Lys Gly Glu Pro Gly Ile Pro Ala  
 50 55 60  
 Ile Pro Gly Ile Arg Gly Pro Lys Gly Gln Lys Gly Glu Pro Gly Leu  
 65 70 75 80  
 Pro Gly His Pro Gly Lys Asn Gly Pro Met Gly Pro Pro Gly Met Pro  
 85 90 95  
 Gly Val Pro Gly Pro Met Gly Ile Pro Gly Glu Pro Gly Glu Glu Gly  
 100 105 110  
 Arg Tyr Lys Gln Lys Phe Gln Ser Val Phe Thr Val Thr Arg Gln Thr  
 115 120 125  
 His Gln Pro Pro Ala Pro Asn Ser Leu Ile Arg Phe Asn Ala Val Leu  
 130 135 140  
 Thr Asn Pro Gln Gly Asp Tyr Asp Thr Ser Thr Gly Lys Phe Thr Cys  
 145 150 155 160  
 Lys Val Pro Gly Leu Tyr Tyr Phe Val Tyr His Ala Ser His Thr Ala  
 165 170 175  
 Asn Leu Cys Val Leu Leu Tyr Arg Ser Gly Val Lys Val Val Thr Phe  
 180 185 190  
 Cys Gly His Thr Ser Lys Thr Asn Gln Val Asn Ser Gly Gly Val Leu  
 195 200 205  
 Leu Arg Leu Gln Val Gly Glu Glu Val Trp Leu Ala Val Asn Asp Tyr  
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<210> 5655  
 <211> 3810  
 <212> DNA  
 <213> Homo sapiens

<400> 5655  
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2280  
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 3810

&lt;210&gt; 5656

&lt;211&gt; 987

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5656

Asp	Leu	Leu	Glu	Glu	Asp	Glu	Leu	Leu	Glu	Gln	Lys	Phe	Gln	Glu	Ala
1				5					10					15	
Val	Gly	Gln	Ala	Gly	Xaa	Pro	Ser	Pro	Ser	Xaa	Ser	Lys	Ala	Glu	Leu
			20					25					30		
Ala	Glu	Val	Arg	Arg	Glu	Trp	Ala	Lys	Tyr	Met	Glu	Val	His	Glu	Lys
		35					40					45			
Ala	Ser	Phe	Thr	Asn	Ser	Glu	Leu	His	Arg	Ala	Met	Asn	Leu	His	Val
	50					55					60				
Gly	Asn	Leu	Arg	Leu	Leu	Ser	Gly	Pro	Leu	Asp	Gln	Val	Arg	Ala	Ala
65					70					75					80
Leu	Pro	Thr	Pro	Ala	Leu	Ser	Pro	Glu	Asp	Lys	Ala	Val	Leu	Gln	Asn
			85						90					95	
Leu	Lys	Arg	Ile	Leu	Ala	Lys	Val	Gln	Glu	Met	Arg	Asp	Gln	Arg	Val
			100					105					110		
Ser	Leu	Glu	Gln	Gln	Leu	Arg	Glu	Leu	Ile	Gln	Lys	Asp	Asp	Ile	Thr
		115					120					125			
Ala	Ser	Leu	Val	Thr	Thr	Asp	His	Ser	Glu	Met	Lys	Lys	Leu	Phe	Glu
		130				135					140				
Glu	Gln	Leu	Lys	Lys	Tyr	Asp	Gln	Leu	Lys	Val	Tyr	Leu	Glu	Gln	Asn
145					150					155					160
Leu	Ala	Ala	Gln	Asp	Arg	Val	Leu	Cys	Ala	Leu	Thr	Glu	Ala	Asn	Val
			165						170					175	
Gln	Tyr	Ala	Ala	Val	Arg	Arg	Val	Leu	Ser	Asp	Leu	Asp	Gln	Lys	Trp
			180					185					190		
Asn	Ser	Thr	Leu	Gln	Thr	Leu	Val	Ala	Ser	Tyr	Glu	Ala	Tyr	Glu	Asp
		195					200					205			
Leu	Met	Lys	Lys	Ser	Gln	Glu	Gly	Arg	Asp	Phe	Tyr	Ala	Asp	Leu	Glu
	210					215						220			
Ser	Lys	Val	Ala	Ala	Leu	Leu	Glu	Arg	Thr	Gln	Ser	Thr	Cys	Gln	Ala

225		230		235		240									
Arg	Glu	Ala	Ala	Arg	Gln	Gln	Leu	Leu	Asp	Arg	Glu	Leu	Lys	Lys	Lys
				245					250					255	
Pro	Pro	Pro	Arg	Pro	Thr	Ala	Pro	Lys	Pro	Leu	Leu	Pro	Arg	Arg	Glu
			260					265					270		
Glu	Ser	Glu	Ala	Val	Glu	Ala	Gly	Asp	Pro	Pro	Glu	Glu	Leu	Arg	Ser
		275					280				285				
Leu	Pro	Pro	Asp	Met	Val	Ala	Gly	Pro	Arg	Leu	Pro	Asp	Thr	Phe	Leu
	290					295				300					
Gly	Ser	Ala	Thr	Pro	Leu	His	Phe	Pro	Pro	Ser	Pro	Phe	Pro	Ser	Ser
305					310				315					320	
Thr	Gly	Pro	Gly	Pro	His	Tyr	Leu	Ser	Gly	Pro	Leu	Pro	Pro	Gly	Thr
			325					330					335		
Tyr	Ser	Gly	Pro	Thr	Gln	Leu	Ile	Gln	Pro	Arg	Ala	Pro	Gly	Pro	His
		340					345				350				
Ala	Met	Pro	Val	Ala	Pro	Gly	Pro	Ala	Leu	Tyr	Pro	Ala	Pro	Ala	Tyr
	355					360				365					
Thr	Pro	Glu	Leu	Gly	Leu	Val	Pro	Arg	Ser	Ser	Pro	Gln	His	Gly	Val
	370				375					380					
Val	Ser	Ser	Pro	Tyr	Val	Gly	Val	Gly	Pro	Ala	Pro	Pro	Val	Ala	Gly
385					390				395					400	
Leu	Pro	Ser	Ala	Pro	Pro	Pro	Gln	Phe	Ser	Gly	Pro	Glu	Leu	Ala	Met
			405					410					415		
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		420					425				430				
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	435					440				445					
Pro	Cys	Phe	Pro	Val	Pro	Pro	Pro	Gln	Pro	Leu	Pro	Thr	Pro	Tyr	Thr
	450				455					460					
Tyr	Pro	Ala	Gly	Ala	Lys	Gln	Pro	Ile	Pro	Ala	Gln	His	His	Phe	Ser
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Ser	Gly	Ile	Pro	Thr	Gly	Phe	Pro	Ala	Pro	Arg	Ile	Gly	Pro	Gln	Pro
			485					490					495		
Gln	Pro	His	Pro	Gln	Pro	His	Pro	Ser	Gln	Ala	Phe	Gly	Pro	Gln	Pro
		500					505				510				
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	515					520					525				
Ala	Pro	Gly	Leu	Leu	Pro	Pro	Gln	Ser	Pro	Tyr	Pro	Tyr	Ala	Pro	Gln
	530				535					540					
Pro	Gly	Val	Leu	Gly	Gln	Pro	Pro	Pro	Pro	Leu	His	Thr	Gln	Leu	Tyr
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Pro	Gly	Pro	Ala	Gln	Asp	Pro	Leu	Pro	Ala	His	Ser	Gly	Ala	Leu	Pro
			565					570					575		
Phe	Pro	Ser	Pro	Gly	Pro	Pro	Gln	Pro	Pro	His	Pro	Pro	Leu	Ala	Tyr
		580					585				590				
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Thr	Ile	Arg	Gly	Pro	Ser	Ser	Ala	Gly	Gln	Ser	Thr	Pro	Ser	Pro	His
	610					615			620						
Leu	Val	Pro	Ser	Pro	Ala	Pro	Ser	Pro	Gly	Pro	Gly	Pro	Val	Pro	Pro
625					630				635					640	
Arg	Pro	Pro	Ala	Ala	Glu	Pro	Pro	Pro	Cys	Leu	Arg	Arg	Gly	Ala	Ala
			645					650					655		
Ala	Ala	Asp	Leu	Leu	Ser	Ser	Ser	Pro	Glu	Ser	Gln	His	Gly	Gly	Thr

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Gln	Ser	Pro	Gly	Gly	Gly	Gln	Pro	Leu	Leu	Gln	Pro	Thr	Lys	Val	Asp
675				680				685							
Ala	Ala	Glu	Gly	Arg	Arg	Pro	Gln	Ala	Leu	Arg	Leu	Ile	Glu	Arg	Asp
690				695				700							
Pro	Tyr	Glu	His	Pro	Glu	Arg	Leu	Arg	Gln	Leu	Gln	Gln	Glu	Leu	Glu
705				710				715				720			
Ala	Phe	Arg	Gly	Gln	Leu	Gly	Asp	Val	Gly	Ala	Leu	Asp	Thr	Val	Trp
725				730				735							
Arg	Glu	Leu	Gln	Asp	Ala	Gln	Glu	His	Asp	Ala	Arg	Gly	Arg	Ser	Ile
740				745				750							
Ala	Ile	Ala	Arg	Cys	Tyr	Ser	Leu	Lys	Asn	Arg	His	Gln	Asp	Val	Met
755				760				765							
Pro	Tyr	Asp	Ser	Asn	Arg	Val	Val	Leu	Arg	Ser	Gly	Lys	Asp	Asp	Tyr
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Ile	Asn	Ala	Ser	Cys	Val	Glu	Gly	Leu	Ser	Pro	Tyr	Cys	Pro	Pro	Leu
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Val	Ala	Thr	Gln	Ala	Pro	Leu	Pro	Gly	Thr	Ala	Ala	Asp	Phe	Trp	Leu
805				810				815							
Met	Val	His	Glu	Gln	Lys	Val	Ser	Val	Ile	Val	Met	Leu	Val	Ser	Glu
820				825				830							
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835				840				845							
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850				855				860							
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865				870				875				880			
Asp	Gln	Ser	Leu	Lys	Arg	Ser	Leu	Val	His	Leu	His	Phe	Pro	Thr	Trp
885				890				895							
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900				905				910							
Gln	Glu	Val	His	Ala	His	Tyr	Leu	His	Gln	Arg	Pro	Leu	His	Thr	Pro
915				920				925							
Ile	Ile	Val	His	Cys	Ser	Ser	Gly	Val	Gly	Arg	Thr	Gly	Ala	Phe	Ala
930				935				940							
Leu	Leu	Tyr	Ala	Ala	Val	Gln	Glu	Val	Glu	Ala	Gly	Asn	Gly	Ile	Pro
945				950				955				960			
Glu	Leu	Pro	Gln	Leu	Val	Arg	Arg	Met	Arg	Gln	Gln	Arg	Lys	His	Met
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&lt;210&gt; 5657

&lt;211&gt; 1020

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5657

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&lt;210&gt; 5658

&lt;211&gt; 301

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5658

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			20					25					30		
Ile	Arg	Leu	Ser	Arg	Asp	Ala	Val	Lys	Asp	Phe	Asp	Cys	Cys	Cys	Leu
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Ser	Leu	Gln	Pro	Cys	His	Asp	Pro	Val	Val	Thr	Pro	Asp	Gly	Tyr	Leu
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Ile	Ala	Arg	Gln	Met	Lys	Ala	Tyr	Glu	Lys	Gln	Arg	Gly	Thr	Arg	Arg
			85					90					95		
Glu	Glu	Gln	Lys	Glu	Leu	Gln	Arg	Ala	Ala	Ser	Gln	Asp	His	Val	Arg
			100					105				110			
Gly	Phe	Leu	Glu	Lys	Glu	Ser	Ala	Ile	Val	Ser	Arg	Pro	Leu	Asn	Pro
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	130					135					140				
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Ser Phe Trp Ile Pro Ser Leu Thr Pro Glu Ala Lys Ala Thr Lys Leu						
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Glu Lys Pro Ser Arg Thr Val Thr Cys Pro Met Ser Gly Lys Pro Leu						
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Arg Met Ser Asp Leu Thr Pro Val His Phe Thr Pro Leu Asp Ser Ser						
	195		200		205	
Val Asp Arg Val Gly Leu Ile Thr Arg Ser Glu Arg Tyr Val Cys Ala						
	210		215		220	
Val Thr Arg Asp Ser Leu Ser Asn Ala Thr Pro Cys Ala Val Leu Arg						
225		230		235		240
Pro Ser Gly Ala Val Val Thr Leu Glu Cys Val Glu Lys Leu Ile Arg						
	245		250		255	
Lys Asp Met Val Asp Pro Val Thr Gly Asp Lys Leu Thr Asp Arg Asp						
	260		265		270	
Ile Ile Val Leu Gln Arg Gly Gly Thr Gly Phe Ala Gly Ser Gly Val						
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&lt;210&gt; 5659

&lt;211&gt; 1263

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5659

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840

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<211> 253

<212> PRT

<213> Homo sapiens

<400> 5660

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			20					25					30		
Lys	Asp	Leu	Ser	Ile	Ser	Arg	Leu	Leu	Ser	Gln	Thr	Phe	Arg	Gly	Lys
		35					40					45			
Glu	Asn	Asp	Thr	Asp	Leu	Asp	Leu	Arg	Tyr	Asp	Thr	Pro	Glu	Pro	Tyr
	50					55					60				
Ser	Glu	Gln	Asp	Leu	Trp	Asp	Trp	Leu	Arg	Asn	Ser	Thr	Asp	Leu	Gln
65				70						75					80
Glu	Pro	Arg	Pro	Arg	Ala	Lys	Arg	Arg	Pro	Ile	Val	Lys	Thr	Gly	Lys
				85					90					95	
Phe	Lys	Lys	Met	Phe	Gly	Trp	Gly	Asp	Phe	His	Ser	Asn	Ile	Lys	Thr
			100					105					110		
Val	Lys	Leu	Asn	Leu	Leu	Ile	Thr	Gly	Lys	Ile	Val	Asp	His	Gly	Asn
		115					120					125			
Gly	Thr	Phe	Ser	Val	Tyr	Phe	Arg	His	Asn	Ser	Thr	Gly	Gln	Gly	Asn
	130					135					140				
Val	Ser	Val	Ser	Leu	Val	Pro	Pro	Thr	Lys	Ile	Val	Glu	Phe	Asp	Leu
145				150						155					160
Ala	Gln	Gln	Thr	Val	Ile	Asp	Ala	Lys	Asp	Ser	Lys	Ser	Phe	Asn	Cys
				165					170					175	
Arg	Ile	Glu	Tyr	Glu	Lys	Val	Asp	Lys	Ala	Thr	Lys	Asn	Thr	Leu	Cys
			180					185					190		
Asn	Tyr	Asp	Pro	Ser	Lys	Thr	Cys	Tyr	Gln	Glu	Gln	Thr	Gln	Ser	His
		195					200					205			
Val	Ser	Trp	Leu	Cys	Ser	Lys	Pro	Phe	Lys	Val	Ile	Cys	Ile	Tyr	Ile
	210					215					220				
Ser	Phe	Tyr	Ser	Thr	Asp	Tyr	Lys	Leu	Val	Gln	Lys	Val	Cys	Pro	Asp
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<210> 5661  
 <211> 578  
 <212> DNA  
 <213> Homo sapiens

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 180  
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<210> 5662  
 <211> 148  
 <212> PRT  
 <213> Homo sapiens

<400> 5662  
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 Gly Pro Ile Thr Gln Cys Thr Ala Arg Thr Gln Gln Glu Ala Pro Ala  
 35 40 45  
 Thr Gly Pro Asp Leu Pro His Pro Gly Pro Asp Gly His Leu Asp Thr  
 50 55 60  
 His Ser Gly Leu Ser Ser Asn Ser Ser Met Thr Thr Arg Glu Leu Gln  
 65 70 75 80  
 Gln Tyr Trp Gln Asn Gln Lys Cys Arg Trp Lys His Val Lys Leu Leu  
 85 90 95  
 Phe Glu Ile Ala Ser Ala Arg Ile Glu Glu Arg Lys Val Ser Lys Phe  
 100 105 110  
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 115 120 125  
 Gly Glu Thr Gly Thr Ala Pro Glu Pro Asp Pro Arg Cys Pro Arg Gln  
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<210> 5663  
<211> 857  
<212> DNA  
<213> Homo sapiens

<400> 5663  
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120  
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660  
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720  
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<210> 5664  
<211> 203  
<212> PRT  
<213> Homo sapiens

<400> 5664  
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Gly Lys Glu Met Ala Glu Glu Tyr Asp Glu Lys Thr Ser Glu Leu Leu  
35 40 45  
Val Arg Lys Trp Arg Val Lys Ser Ala Leu Gly Ala Met Gly Gln Trp  
50 55 60  
Gln Leu Glu Val Gly Asp Pro Ala Pro Leu Gly Ala Gly Asn Leu Gly

65		70		75		80									
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				85					90					95	
Asp	Thr	Lys	Met	Ser	Phe	Gln	Trp	Arg	Ile	Arg	Asn	Leu	Pro	Tyr	Pro
			100					105					110		
Lys	Asp	Val	Tyr	Ser	Val	Ser	Val	Asp	Gln	Lys	Glu	Arg	Cys	Ile	Ile
		115					120					125			
Val	Arg	Thr	Thr	Asn	Lys	Lys	Tyr	Tyr	Lys	Lys	Phe	Ser	Ile	Pro	Asp
	130					135					140				
Leu	Asp	Arg	His	Gln	Leu	Pro	Leu	Asp	Asp	Ala	Leu	Leu	Ser	Phe	Ala
145					150					155					160
His	Ala	Asn	Cys	Thr	Leu	Ile	Ile	Ser	Tyr	Gln	Lys	Pro	Lys	Glu	Val
			165					170						175	
Val	Val	Ala	Glu	Ser	Glu	Leu	Gln	Lys	Glu	Leu	Lys	Lys	Val	Lys	Thr
		180						185					190		
Ala	His	Ser	Asn	Asp	Gly	Asp	Cys	Lys	Thr	Gln					
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&lt;210&gt; 5665

&lt;211&gt; 531

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5665

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531

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&lt;210&gt; 5666

&lt;211&gt; 79

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5666

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Leu	Gln	Gln	Gln	Tyr	Glu	Leu	Tyr	Arg	Glu	Arg	Leu	Leu	Gln	Arg	Cys
			20					25					30		
Glu	Arg	Arg	Pro	Val	Glu	Gln	Val	Leu	Tyr	His	Gly	Thr	Thr	Ala	Pro

	35		40		45										
Ala	Val	Pro	Asp	Ile	Cys	Ala	His	Gly	Phe	Asn	Arg	Ser	Phe	Cys	Gly
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Arg	Asn	Ala	Thr	Val	Tyr	Gly	Lys	Gly	Val	Tyr	Phe	Ala	Arg	Arg	
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 <211> 858  
 <212> DNA  
 <213> Homo sapiens

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<210> 5668  
 <211> 152  
 <212> PRT  
 <213> Homo sapiens

<400> 5668  
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<210> 5669
<211> 1842
<212> DNA
<213> Homo sapiens
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&lt;210&gt; 5670

&lt;211&gt; 591

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5670

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			20					25						30	
Gln	Gly	Gln	Gly	Pro	Arg	Ala	Glu	Ala	Met	Met	Arg	Ser	Ser	Ile	Glu
			35					40						45	
Arg	Gly	Lys	Trp	Val	Phe	Phe	Gln	Asn	Cys	His	Leu	Ala	Pro	Ser	Trp
			50				55				60				
Met	Pro	Ala	Leu	Glu	Arg	Leu	Ile	Glu	His	Ile	Asn	Pro	Asp	Lys	Val
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His	Arg	Asp	Phe	Arg	Leu	Trp	Leu	Thr	Ser	Leu	Pro	Ser	Asn	Lys	Phe
				85					90					95	
Pro	Val	Ser	Ile	Leu	Gln	Asn	Gly	Ser	Lys	Met	Thr	Ile	Glu	Pro	Pro
				100				105						110	
Arg	Gly	Val	Arg	Ala	Asn	Leu	Leu	Lys	Ser	Tyr	Ser	Ser	Leu	Gly	Glu
			115				120						125		
Asp	Phe	Leu	Asn	Ser	Cys	His	Lys	Val	Met	Glu	Phe	Lys	Ser	Leu	Leu

130	135	140
Leu Ser Leu Cys Leu Phe His Gly Asn Ala Leu Glu Arg Arg Lys Phe		
145	150	155
Gly Pro Leu Gly Phe Asn Ile Pro Tyr Glu Phe Thr Asp Gly Asp Leu		160
	165	170
Arg Ile Cys Ile Ser Gln Leu Lys Met Phe Leu Asp Glu Tyr Asp Asp		175
	180	185
Ile Pro Tyr Lys Val Leu Lys Tyr Thr Ala Gly Glu Ile Asn Tyr Gly		190
	195	200
Gly Arg Val Thr Asp Asp Trp Asp Arg Arg Cys Ile Met Asn Ile Leu		205
	210	215
Glu Asp Phe Tyr Asn Pro Asp Val Leu Ser Pro Glu His Ser Tyr Ser		220
225	230	235
Ala Ser Gly Ile Tyr His Gln Ile Pro Pro Thr Tyr Asp Leu His Gly		240
	245	250
Tyr Leu Ser Tyr Ile Lys Ser Leu Pro Leu Asn Asp Met Pro Glu Ile		255
	260	265
Phe Gly Leu His Asp Asn Ala Asn Ile Thr Phe Ala Gln Asn Glu Thr		270
	275	280
Phe Ala Leu Leu Gly Thr Ile Ile Gln Leu Gln Pro Lys Ser Ser Ser		285
	290	295
Ala Gly Ser Gln Gly Arg Glu Glu Ile Val Glu Asp Val Thr Gln Asn		300
305	310	315
Ile Leu Leu Lys Val Pro Glu Pro Ile Asn Leu Gln Trp Val Met Ala		320
	325	330
Lys Tyr Pro Val Leu Tyr Glu Glu Ser Met Asn Thr Val Leu Val Gln		335
	340	345
Glu Val Ile Arg Tyr Asn Arg Leu Leu Gln Val Ile Thr Gln Thr Leu		350
	355	360
Gln Asp Leu Leu Lys Ala Leu Lys Gly Leu Val Val Met Ser Ser Gln		365
	370	375
Leu Glu Leu Met Ala Ala Ser Leu Tyr Asn Asn Thr Val Pro Glu Leu		380
385	390	395
Trp Ser Ala Lys Ala Tyr Pro Ser Leu Lys Pro Leu Ser Ser Trp Val		400
	405	410
Met Asp Leu Leu Gln Arg Leu Asp Phe Leu Gln Ala Trp Ile Gln Asp		415
	420	425
Gly Ile Pro Ala Val Phe Trp Ile Ser Gly Phe Phe Phe Pro Gln Ala		430
	435	440
Phe Leu Thr Gly Thr Leu Gln Asn Phe Ala Arg Lys Phe Val Ile Ser		445
	450	455
Ile Asp Thr Ile Ser Phe Asp Phe Lys Val Met Phe Glu Ala Pro Ser		460
465	470	475
Glu Leu Thr Gln Arg Pro Gln Val Gly Cys Tyr Ile His Gly Leu Phe		480
	485	490
Leu Glu Gly Ala Arg Trp Asp Pro Glu Ala Phe Gln Leu Ala Glu Ser		495
	500	505
Gln Pro Lys Glu Leu Tyr Thr Glu Met Ala Val Ile Trp Leu Leu Pro		510
	515	520
Thr Pro Asn Arg Lys Ala Gln Asp Gln Asp Phe Tyr Leu Cys Pro Ile		525
	530	535
Tyr Lys Thr Leu Thr Arg Ala Gly Thr Leu Ser Thr Thr Gly His Ser		540
545	550	555
Thr Asn Tyr Val Ile Ala Val Glu Ile Pro Thr His Gln Pro Gln Arg		560

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 <211> 818  
 <212> DNA  
 <213> Homo sapiens  
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<210> 5672  
 <211> 220  
 <212> PRT  
 <213> Homo sapiens

<400> 5672  
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 Cys Glu Val Cys Lys Met Met Leu Ser Val Asn Asn Phe Val Ser His  
 35 40 45  
 Gln Lys Lys Pro Tyr Cys His Ala His Asn Pro Lys Asn Asn Thr Phe  
 50 55 60  
 Thr Ser Val Tyr His Thr Pro Leu Asn Leu Asn Val Arg Thr Phe Pro  
 65 70 75 80

Glu	Ala	Ile	Ser	Gly	Ile	His	Asp	Gln	Glu	Asp	Gly	Glu	Gln	Cys	Lys
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Ser	Val	Phe	His	Trp	Asp	Met	Lys	Ser	Lys	Asp	Lys	Glu	Gly	Ala	Pro
			100					105					110		
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		115					120					125			
Glu	Gly	Asn	Ala	Trp	Cys	Pro	Gly	Ala	Leu	Pro	Asp	Pro	Glu	Ile	Val
	130					135					140				
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			165					170					175		
Ala	Tyr	Gln	Arg	Ala	Lys	Lys	Ala	Asn	Gln	Leu	Ala	Ser	Gln	Val	Glu
		180					185					190			
Tyr	Lys	Arg	Gly	His	Asp	Glu	Arg	Ile	Ser	Arg	Phe	Ser	Thr	Val	Ala
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&lt;210&gt; 5673

&lt;211&gt; 1279

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5673

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<210> 5674

<211> 81

<212> PRT

<213> Homo sapiens

<400> 5674

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			20					25					30		
Ser	Val	Leu	Gly	Val	Pro	Pro	Trp	Ser	Thr	Leu	Leu	Gln	His	Pro	Gln
		35					40					45			
Asn	Met	Trp	Pro	Gly	Pro	Ala	Gln	Gln	Gln	Gly	Gln	Pro	Ser	Gly	Arg
	50					55				60					
Gln	Ala	Trp	Cys	Thr	Pro	Gly	Glu	Ala	Pro	Gly	Ala	Glu	Ala	Ala	Pro
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<210> 5675

<211> 1074

<212> DNA

<213> Homo sapiens

<400> 5675

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&lt;210&gt; 5676

&lt;211&gt; 145

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5676

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Ala	Thr	Ser	Gln	Gly	Cys	Arg	Ala	Gly	Gly	Arg	Cys	Gly	Trp	Ala	Cys
			20					25					30		
Ala	Cys	Phe	Arg	Arg	Gln	Gln	Asn	Arg	Thr	Gln	Pro	Ala	Val	Thr	Pro
		35					40					45			
His	Ser	Arg	Ser	Arg	Arg	Thr	Ala	Ser	Arg	Met	Ser	Leu	Gly	Glu	Gln
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Gly	Ser	Thr	Thr	Gly	Leu	Thr	Leu	Gly	His	Arg	Ala	Pro	Ala	Pro	Trp
65					70				75					80	
Gly	Met	Ser	Trp	His	Asn	His	Arg	Arg	Gln	Val	Asn	Arg	Ile	Lys	Ser
			85						90					95	
Arg	Gln	Cys	Leu	Ser	Met	Ser	Glu	Thr	Ala	Val	Ala	Arg	Ala	Trp	Pro
			100					105					110		
Arg	Ala	Ala	Gly	Pro	Ala	Leu	Ala	Ile	Ser	Pro	Gly	Leu	Ala	Arg	Gly
		115					120					125			
Gly	Leu	Gly	Leu	Thr	Pro	Arg	Thr	Arg	Cys	Pro	Gln	Arg	Val	Pro	His
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Cys															
145															

&lt;210&gt; 5677

&lt;211&gt; 477



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5677

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 477

&lt;210&gt; 5678

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5678

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Ala	Ser	Thr	Ser	Leu	Ile	Ser	Ala	Leu	Val	Val	Phe	Ser	Ser	Trp	Cys
			20					25					30		
Met	Glu	Trp	Thr	Ser	Arg	Tyr	Phe	His	Met	Gln	Ile	Arg	Gly	Arg	Gly
	35					40					45				
Ser	Gly	Gly	Cys	Gly	Lys	Lys	Ala	Asn	Trp	Gly	Arg	Gln	Gln	Gly	Phe
	50				55				60						
Ser	Leu	Glu	Gln	Thr	Ser	Ala	Ala	Cys	Ala	Leu	Leu	Gln	Asp	Leu	His
65				70					75					80	
Lys	Ala	Cys	Ile	Ala	His	Gly	His	Lys	Gln	Leu	Leu	Ser	Glu	Val	Asn
			85					90					95		
Glu	Trp	Ile	Pro	Glu	Arg	Ala	Ser	Leu	Leu	His	Leu	Ala	Phe	Pro	Thr
			100					105					110		
Ser	Asn	Pro	Leu	Gly	Gln	Arg	Gly	Gly	Val	Leu	Pro	Leu	Leu	His	Gln
	115					120						125			
Cys	Pro	Phe	Leu	Pro	Trp	Ser	Gln	Ala	Ala	Ser	Phe	Gln	His	Arg	Pro
	130					135					140				
Leu	Gln	Arg	Gly	Thr	Ala	Ala									
145						150									

&lt;210&gt; 5679

&lt;211&gt; 665

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5679

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 665

<210> 5680  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

<400> 5680  
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 1 5 10 15  
 Gln Thr Pro Pro Asp Ser Thr Ser Gln His Ala Gly Ser Asn Ser Thr  
 20 25 30  
 Ser Gln Gln Pro Ser Pro Glu Ser Thr Pro Gln Gln Pro Ser Pro Glu  
 35 40 45  
 Ser Thr Pro Gln Gln Pro Ser Pro Glu Ser Thr Pro Gln His Ser Ser  
 50 55 60  
 Leu Glu Thr Thr Ser Arg Gln Pro Ala Phe Gln Ala Leu Pro Ala Pro  
 65 70 75 80  
 Glu Ile Arg Arg Ser Ser Cys Cys Leu Leu Ser Pro Asp Ala Asn Val  
 85 90 95  
 Lys Ala Ala Pro Gln Ser Arg Lys Ala Glu Asn Leu Gln Glu Asn Pro  
 100 105 110  
 Pro Val Ile Val Thr Arg Val Leu Gln Ala Leu Gly Thr Val Ala Val  
 115 120 125  
 Ala Leu Gly Ala Leu Gly Ala Ala Tyr Tyr Ile Thr Glu Ser Leu  
 130 135 140

<210> 5681  
 <211> 1402  
 <212> DNA  
 <213> Homo sapiens

&lt;400&gt; 5681

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gtcgggacct ggtttccggg catgagctga gagcaccacg ccgaggccac gagtatttca  
120  
tagacattga tggaagcaga aacccaaaact cttcccctgg agaatgcac catcctttca  
180  
gagggctctc tgcaggaagg acaccgatta tggattggca acctggacce caaaattacc  
240  
gaataccacc tectcaagct cctccagaag tttggcaagg taaagcagtt tgacttcctc  
300  
ttccacaagt caggtgcttt ggaggggacag cctcgaggct actgttttgt taactttgaa  
360  
actaagcagg aagcagagca agccatccag tgtctcaatg gcaagttggc cctgtccaag  
420  
aagctgggtg tgcgatgggc acatgctcaa gtaaagagat atgatacata caagaatgat  
480  
aagattcttc caatcagtct cgagccatcc tcaagcactg agcctactca gtctaacct  
540  
agtgtcactg caaagataaa agccattgaa gcaaaactga aaatgatggc ggaaaatcct  
600  
gatgcagagt atccagcagc gcctgtttat tcctacttta agccaccaga taaaaaagg  
660  
actactccat attctagaac agcatggaaa tctcgaagat gatggttggt aattactgta  
720  
gcagcaaaag caaattggtc tccacaccta aaatcgtctg cctgtgtact ttgtagatgt  
780  
gaatgggtact attcaacgga gcacaatcac atgttagcat ttggtaacat aatgtttttg  
840  
gatgttctta tggatgtttc ttccctaaac tatgtatgga attgagcatc atccagaata  
900  
aatagcgttg tateccaaat tgtgatttga accctgggat gctctaattg gctgggttgg  
960  
ttggatttgt aactccagaa acattctata gtgtgccaga gcaaaaggca aatacacaaa  
1020  
atattattta aatcaggaaa ctaaaaatat taacatctat taaaaaattg agcatttttc  
1080  
tacgctcgtg tgtcttttac aacataaaga aaaagtaaaa ggcagggagg gaagtgagag  
1140  
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1200  
ctggactgaa aaagagaaag ttcttggcaa aaaggagctg attctttgaa caaatgttgt  
1260  
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1320  
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1380  
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1402

&lt;210&gt; 5682

&lt;211&gt; 190

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5682

```

Met Glu Ala Glu Thr Lys Thr Leu Pro Leu Glu Asn Ala Ser Ile Leu
 1          5          10          15
Ser Glu Gly Ser Leu Gln Glu Gly His Arg Leu Trp Ile Gly Asn Leu
 20          25          30
Asp Pro Lys Ile Thr Glu Tyr His Leu Leu Lys Leu Leu Gln Lys Phe
 35          40          45
Gly Lys Val Lys Gln Phe Asp Phe Leu Phe His Lys Ser Gly Ala Leu
 50          55          60
Glu Gly Gln Pro Arg Gly Tyr Cys Phe Val Asn Phe Glu Thr Lys Gln
 65          70          75          80
Glu Ala Glu Gln Ala Ile Gln Cys Leu Asn Gly Lys Leu Ala Leu Ser
 85          90          95
Lys Lys Leu Val Val Arg Trp Ala His Ala Gln Val Lys Arg Tyr Asp
100          105          110
His Asn Lys Asn Asp Lys Ile Leu Pro Ile Ser Leu Glu Pro Ser Ser
115          120          125
Ser Thr Glu Pro Thr Gln Ser Asn Leu Ser Val Thr Ala Lys Ile Lys
130          135          140
Ala Ile Glu Ala Lys Leu Lys Met Met Ala Glu Asn Pro Asp Ala Glu
145          150          155          160
Tyr Pro Ala Ala Pro Val Tyr Ser Tyr Phe Lys Pro Pro Asp Lys Lys
165          170          175
Arg Thr Thr Pro Tyr Ser Arg Thr Ala Trp Lys Ser Arg Arg
180          185          190

```

<210> 5683

<211> 328

<212> DNA

<213> Homo sapiens

<400> 5683

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ggatccatgc gttgccctag ggaggcctca gctgtcaagc actgaccatc tctgcagaca
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cgcagggctg acctgtactg gtgagtaagc attagccatg ggacgcacac aatccagcca
120
atgctttcag aaggcaccac atgtgatgca cagcctctat ttacatgtga ataattacac
180
tgctgctttc tggttaaaag tagggaaata cagtgttcca gggcatagga atgggtgctct
240
gggtagaaaa gtttattttg ctggtgggag gcaggttttg ttaataaagc tttgaaatac
300
acaaatttca ttctggatgc tgatgctg
328

```

<210> 5684

<211> 103

<212> PRT

<213> Homo sapiens

<400> 5684

```

Met Lys Phe Val Tyr Phe Lys Ala Leu Leu Thr Lys Pro Ala Ser His

```

```

      1           5           10           15
Gln Gln Asn Lys Leu Phe Tyr Pro Glu His His Ser Tyr Ala Leu Glu
      20           25           30
His Cys Ile Ser Leu Leu Leu Thr Arg Lys Gln Gln Cys Asn Tyr Ser
      35           40           45
His Val Asn Arg Gly Cys Ala Ser His Val Val Pro Ser Glu Ser Ile
      50           55           60
Gly Trp Ile Val Cys Val Pro Trp Leu Met Leu Thr His Gln Tyr Arg
      65           70           75           80
Ser Ala Leu Arg Val Cys Arg Asp Gly Gln Cys Leu Thr Ala Glu Ala
      85           90           95
Ser Leu Gly Gln Arg Met Asp
      100

```

&lt;210&gt; 5685

&lt;211&gt; 604

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5685

```

ccatgcagcc gcgtgggtgg caagcgggtg gtgtgctatg acgacagatt cattgtgaag
60
ctggcctacg agtctgacgg gatcgtggtt tccaacgaca cataccgtga cctccaaggc
120
gagcggcagg agtggaagcg cttcatcgag gagcggctgc tcatgtactc cttcgtcaat
180
gacaagtatg ttccctccca gaggccctga cagacttggg gtccacaggg gaagccagag
240
gtgcccttgg caaggggtgga gctgggggct gggctctgcg gggccctgtg gccatgggag
300
gttgcgggtc ttggctccag gcagctttga gagtgagacg gatagctcac cacataggag
360
aatcagacc gggaccaggc aggctgtggg gtggagagag tggctaattt gggagataga
420
gccgtagcac ttatgagggg atgtatgtgg ttgatggttc caggtggcct ctctacgaac
480
caacatggca tctctcgagc agaggccatg ggccagtggg tgcgggctgc catccccga
540
cgacttcagg gagggagtgc ccctaaaggt gcccatgggc tgtggccctc tagaccgggg
600
atcc
604

```

&lt;210&gt; 5686

&lt;211&gt; 69

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5686

```

Pro Cys Ser Arg Val Gly Gly Lys Arg Val Val Cys Tyr Asp Asp Arg
1           5           10           15
Phe Ile Val Lys Leu Ala Tyr Glu Ser Asp Gly Ile Val Val Ser Asn
      20           25           30
Asp Thr Tyr Arg Asp Leu Gln Gly Glu Arg Gln Glu Trp Lys Arg Phe

```

35 40 45  
 Ile Glu Glu Arg Leu Leu Met Tyr Ser Phe Val Asn Asp Lys Tyr Val  
 50 55 60  
 Pro Ser Gln Arg Pro  
 65

<210> 5687  
 <211> 328  
 <212> DNA  
 <213> Homo sapiens

<400> 5687  
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 60  
 ccccggtctt gcatgcacgc ctgcgtgaac acccggggt cttcccgttg cacctgcccc  
 120  
 ggtggatccg aaactctggc tgacgggaag agctgtgaga atgtggatga atgtgtgggc  
 180  
 ctgcagccgg tgtgccccca ggggaccaca tgcataca cgggtggaag cttccagtgt  
 240  
 gtcagccctg agtgccccga gggcagcggc aatgtgagct acgtgaagac gtctccattc  
 300  
 cagtgtgagc ggaaccctg ccccatgg  
 328

<210> 5688  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 5688  
 Thr Leu Ser Arg Pro Arg Gly Ala Gly Lys Gly Gly Gly Asp Gly Gly  
 1 5 10 15  
 Gly Gly Glu Arg Pro Arg Leu Cys Met His Ala Cys Val Asn Thr Pro  
 20 25 30  
 Gly Ser Ser Arg Cys Thr Cys Pro Gly Gly Ser Glu Thr Leu Ala Asp  
 35 40 45  
 Gly Lys Ser Cys Glu Asn Val Asp Glu Cys Val Gly Leu Gln Pro Val  
 50 55 60  
 Cys Pro Gln Gly Thr Thr Cys Ile Asn Thr Gly Gly Ser Phe Gln Cys  
 65 70 75 80  
 Val Ser Pro Glu Cys Pro Glu Gly Ser Gly Asn Val Ser Tyr Val Lys  
 85 90 95  
 Thr Ser Pro Phe Gln Cys Glu Arg Asn Pro Cys Pro Met  
 100 105

<210> 5689  
 <211> 1897  
 <212> DNA  
 <213> Homo sapiens

<400> 5689  
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 60

tgaacaatca gaatcataga agagtgtgag cactgggtcct ttgtcttcca ggtgggacag  
120  
tgtgtggtgg tcttcagcca ggctcctagt gggagagccc cactcagccc cagtttgaac  
180  
tctcgcccat cacctatcag tgccactncc tccagctctc gttcctgaaa cccgagagta  
240  
ccgctctcag tctccagtaa gaagcatgga tgaagctcct tgtgttaacg gccgctgggg  
300  
aacactgaga cccaggggtc aaaggcagac tcttcaggtt cccgggaagg gaggctttcc  
360  
ccagccagag gagacggctc tcctatcctc aatgggtggga gtttgtctcc aggaacggca  
420  
gctgtgggtg gctcttcttt ggacagtcct gtacaggcca tatctccaag tactccatct  
480  
gctgctgaag gatacgacct gaaaatagga ctttcttttg ccccccgcag aggatcaacc  
540  
agatcagaaa gatctgagat taggatccat agatctgaat tgggatctaa acccgcttcc  
600  
agtagtaatc ccatggatgg catggacaat aggacagttg ggggaagtat gagacaccct  
660  
cctgaacaga caaatgggtg gcatacccca cctcacgtgg ccagtgcctt tgcagggggc  
720  
gtctccccag gtgccctgcg tcggagtctg gaagccatca aagcgatgtc ctccaaaggc  
780  
ccctcggcct ctgcagcact aagtcctcct cttgggtctt ctccaggctc tcctgggagc  
840  
cagagtttga gcagtggaga aacagtgtcc atccctcgcc cagggcctgc ccaaggagat  
900  
ggacattcct tacctcccat tgctcgccgc ctggggccacc accctccaca gtccctaaat  
960  
gttggcaaac ccctatacca gagtatgaac tgcaagccca tgcagatgta cgtgctggac  
1020  
attaaagaca ccaaggagaa ggggcgggtc aaatggaaag tatttaatag cagttctgtg  
1080  
gttggacctc ctgaaaccag cctgcatacc gtggtacaag gcaggggtga actcatcata  
1140  
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1200  
tactttgtac gagcaaagag ataatgtgtt ctaaaccctt ttccttttct gtggctttta  
1260  
atttgggaatt ttccagtgtg taagcatttg gactgagaat tgggaaaaca aaattactcc  
1320  
cagaagccaa aactctttta ttcccaaccg aagtcactcc aggtggggat caaatctcca  
1380  
ttaagaaaaa aaattatata taaatatata tatatatatt atatagccaa ctctgttgac  
1440  
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gctgggctgc ctttttctac cttgctggta actagaccaa gaagttagag aatagactaa  
1560  
catcagtaac ttcccaaaag aaactgaaga gccccctgta aatctttatg tggccttctt  
1620  
ggagttaaaa aatgaaaggg catatgtaag ttgcaaaggt ggagggtttt agactctcat  
1680



gcttcaggtg ctgtcgggggt aaaagtaact gtttttcccc ttctcttaaa accacagagg  
 1740  
 acctgtgaca gctctgcaga aatgccagtg cctggccccc tcttgccctt tatggctgag  
 1800  
 gaaagttacc caacaaagga ttttattcca catttgtgtg ccgggtcatt gtgaaataat  
 1860  
 gtttatgcag ccaacatctg aaaaaaaaaa aaaaaaa  
 1897

<210> 5690

<211> 54

<212> PRT

<213> Homo sapiens

<400> 5690

Thr	Ile	Arg	Ile	Ile	Glu	Glu	Cys	Glu	His	Trp	Ser	Phe	Val	Phe	Gln
1				5					10					15	
Val	Gly	Gln	Cys	Val	Val	Val	Phe	Ser	Gln	Ala	Pro	Ser	Gly	Arg	Ala
			20					25					30		
Pro	Leu	Ser	Pro	Ser	Leu	Asn	Ser	Arg	Pro	Ser	Pro	Ile	Ser	Ala	Thr
		35					40					45			
Xaa	Ser	Ser	Ser	Arg	Ser										
															50

<210> 5691

<211> 1227

<212> DNA

<213> Homo sapiens

<400> 5691

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 aaccgtcctg tggaggtgta ccagtacagc acagaacca tcaacacatt ccatgggata  
 120  
 catcaaaacg aggacgaacc cattcgtgtt agctaccatc ggaatatcca ctataattca  
 180  
 gtggtgaatc ctaacaaggc caccattggt gtggggctgg gctgccatca ttcaaaccag  
 240  
 ggtttgcaga gcagtctctg atgaagaatg ccataaaaac atcggaggag tcatggattg  
 300  
 aacagcagat gctagaagac aagaaacggg ccacagactg ggaggccaca aatgaagcca  
 360  
 tcgaggagca ggtggctcgg gaatcctacc tgcagtgggt gcgggatcag gagaaacagg  
 420  
 ctgccaggt ccgaggcccc agccagcccc ggaaagccag cgccacatgc agttcggcca  
 480  
 cagcagcagc ctccagtggc ctggaggagt ggactagccg gtccccgcgg cagcggagtt  
 540  
 cagcctcgtc acctgagcac cctgagctgc atgctgaatt gggcatgaag cccccttccc  
 600  
 caggcactgt tttagctctt gccaaacctc cttcgccctg tgcgccaggt acaagcagtc  
 660  
 agttctcggc aggggcccgc cgggcaactt ccccccttgt gtccctctac cctgctttgg  
 720

agtgccgggc cctcattcag cagatgtccc cctctgcctt tggcttgaat gactgggatg  
 780  
 atgatgagat cctagcttcg gtgctggcag tgtcccaaca ggaataccta gacagtatga  
 840  
 agaaaaacaa agtgcacaga gacccgcccc cagacaagag ttgatggaga cccagggatt  
 900  
 ggacaccatc tcccaacccc agggattcgg gcaaggggtgc cgaagataga caagaggcac  
 960  
 acagagacag accaactggc agccaggcag cccagagga gagagacatt cagacagagg  
 1020  
 aaagtctccc tgcccctcat tccttccaag atgagaaaaa cttgccgcca cccccgaca  
 1080  
 ctgatgccag ggaggtggga ggaagaagtg ggaaatttcc cttcccagta cccccaagaa  
 1140  
 cgtctgagcc ttcaatgttg aattttttct ttattaaaat tacttttate ttataaaatc  
 1200  
 aactaatcaa aaatgaaaaa aaaaaaa  
 1227

<210> 5692

<211> 86

<212> PRT

<213> Homo sapiens

<400> 5692

Lys	Arg	Lys	Asn	Asn	Cys	His	Gly	Asn	His	Ile	Glu	Met	Gln	Ala	Met
1				5					10					15	
Ala	Glu	Met	Tyr	Asn	Arg	Pro	Val	Glu	Val	Tyr	Gln	Tyr	Ser	Thr	Glu
			20					25					30		
Pro	Ile	Asn	Thr	Phe	His	Gly	Ile	His	Gln	Asn	Glu	Asp	Glu	Pro	Ile
		35					40					45			
Arg	Val	Ser	Tyr	His	Arg	Asn	Ile	His	Tyr	Asn	Ser	Val	Val	Asn	Pro
	50					55					60				
Asn	Lys	Ala	Thr	Ile	Gly	Val	Gly	Leu	Gly	Cys	His	His	Ser	Asn	Gln
65					70				75					80	
Gly	Leu	Gln	Ser	Ser	Leu										
					85										

<210> 5693

<211> 389

<212> DNA

<213> Homo sapiens

<400> 5693

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 gacactgggg cacctctgcg cctgtcccaa ggccacgctg gctctcttca ggcccatggc  
 120  
 tccaaccccc cagggcccct cgtcggggcg tcccaactta gtcgtcccct gacgcggcct  
 180  
 ctgggcccct ccgggttggg gagctgacgg cagcttcccc ccacaggtgc ctctgagcct  
 240  
 cggaacatga tctacatgag ccgcttgggt atctggggcg agggcacacc cttccggaac  
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tttgaggagt tcctgcacgc catcgagaag aggggcgttg gcgccatgga gatcgtggcc  
360  
atggacatga aggtcagcgg gcatgtaca  
389

<210> 5694  
<211> 60  
<212> PRT  
<213> Homo sapiens

<400> 5694  
Arg Gln Leu Pro Pro Thr Gly Ala Ser Glu Pro Arg Asn Met Ile Tyr  
1 5 10 15  
Met Ser Arg Leu Gly Ile Trp Gly Glu Gly Thr Pro Phe Arg Asn Phe  
20 25 30  
Glu Glu Phe Leu His Ala Ile Glu Lys Arg Gly Val Gly Ala Met Glu  
35 40 45  
Ile Val Ala Met Asp Met Lys Val Ser Gly His Val  
50 55 60

<210> 5695  
<211> 1417  
<212> DNA  
<213> Homo sapiens

<400> 5695  
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gccttgccgc aagccctaac cttttccctg ttggagcagc ccccgttgga ggcagaagag  
120  
ccccagata gggggactga tggcaaggcc cagctgggtg tgcactcggc ctttgagcag  
180  
gatgtggagg agctggaccg ggcgctcagg gctgccttgg aggtccacgt ccaggaggag  
240  
acgggtggggc cctggcgccg cacactgcct gcagagctgc gtgctcgcct ggagcgggtgc  
300  
catggtgtga gtgttgccct gcgtgggtgac tgcaccatcc tccgtggctt cggggcccac  
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caccgctgc tgcagcagca gtatgagctg taccgggagc gcctgctgca gcgatgagag  
660  
cggcgcccgg tggagcaggt gctgtaccac ggcacgacgg caccggcagt gcctgacatc  
720  
tgcgcccacg gcttcaaccg cagcttctgc ggccgcaacg ccacggtcta cgggaagggc  
780  
gtgtatttcg ccaggcgcg ctcctgtcg gtgcaggacc gctactcgcc cccaacgcc  
840

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gatggccata aggcggtggt cgtggcacgg gtgctgactg gcgactacgg gcaggggccc
900
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960
gccgtggact gcattctgcca gccagcattc ttcgtcatct tccacgacac ccaggcgctg
1020
cccacccacc tcattcacctg cgagcacgtg ccccgcgctt cccccgacga cccctctggg
1080
ctcccggggc gctccccaga cacttaaccg aagggggccac cctctggcct cctgcttccc
1140
aggctcccag ctccgcacag gctgatgctc cccgccccca actgtggccg cctgagctgt
1200
ccccggggac gcccttgcatt ccctctgcgg gctccagaag gcggtgtggg ggatggcggt
1260
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1320
tcagcagagc ccaggagcga caccgcccgc ccgccgctcc cagacctcgc ccgagtcggc
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1417

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<210> 5696

<211> 368

<212> PRT

<213> Homo sapiens

<400> 5696

Val	Ala	Leu	His	Arg	Ser	Leu	Lys	Pro	Gln	Gly	Gln	Val	Gly	Glu	Gln
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Glu	Glu	Ala	Gly	Ala	Leu	Arg	Gln	Ala	Leu	Thr	Phe	Ser	Leu	Leu	Glu
			20					25					30		
Gln	Pro	Pro	Leu	Glu	Ala	Glu	Glu	Pro	Pro	Asp	Arg	Gly	Thr	Asp	Gly
		35					40					45			
Lys	Ala	Gln	Leu	Val	Val	His	Ser	Ala	Phe	Glu	Gln	Asp	Val	Glu	Glu
	50					55					60				
Leu	Asp	Arg	Ala	Leu	Arg	Ala	Ala	Leu	Glu	Val	His	Val	Gln	Glu	Glu
65					70					75					80
Thr	Val	Gly	Pro	Trp	Arg	Arg	Thr	Leu	Pro	Ala	Glu	Leu	Arg	Ala	Arg
				85					90					95	
Leu	Glu	Arg	Cys	His	Gly	Val	Ser	Val	Ala	Leu	Arg	Gly	Asp	Cys	Thr
			100						105				110		
Ile	Leu	Arg	Gly	Phe	Gly	Ala	His	Pro	Ala	Arg	Ala	Ala	Arg	His	Leu
		115					120					125			
Val	Ala	Leu	Leu	Ala	Gly	Pro	Trp	Asp	Gln	Ser	Leu	Ala	Phe	Pro	Leu
	130						135				140				
Ala	Ala	Ser	Gly	Pro	Thr	Leu	Ala	Gly	Gln	Thr	Leu	Lys	Gly	Pro	Trp
145					150					155					160
Asn	Asn	Leu	Glu	Arg	Leu	Ala	Glu	Asn	Thr	Gly	Glu	Phe	Gln	Glu	Val
				165					170					175	
Val	Arg	Ala	Phe	Tyr	Asp	Thr	Leu	Asp	Ala	Ala	Arg	Ser	Ser	Ile	Arg
			180					185					190		
Val	Val	Arg	Val	Glu	Arg	Val	Ser	His	Pro	Leu	Leu	Gln	Gln	Gln	Tyr
		195					200					205			
Glu	Leu	Tyr	Arg	Glu	Arg	Leu	Leu	Gln	Arg	Cys	Glu	Arg	Arg	Pro	Val

210	215	220
Glu Gln Val Leu Tyr His Gly Thr Thr Ala Pro Ala Val Pro Asp Ile		
225	230	235
Cys Ala His Gly Phe Asn Arg Ser Phe Cys Gly Arg Asn Ala Thr Val		240
	245	250
Tyr Gly Lys Gly Val Tyr Phe Ala Arg Arg Ala Ser Leu Ser Val Gln		255
	260	265
Asp Arg Tyr Ser Pro Pro Asn Ala Asp Gly His Lys Ala Val Phe Val		270
	275	280
Ala Arg Val Leu Thr Gly Asp Tyr Gly Gln Gly Arg Arg Gly Leu Arg		285
	290	295
Ala Pro Pro Leu Arg Gly Pro Gly His Val Leu Leu Arg Tyr Asp Ser		300
305	310	315
Ala Val Asp Cys Ile Cys Gln Pro Ser Ile Phe Val Ile Phe His Asp		320
	325	330
Thr Gln Ala Leu Pro Thr His Leu Ile Thr Cys Glu His Val Pro Arg		335
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Ala Ser Pro Asp Asp Pro Ser Gly Leu Pro Gly Arg Ser Pro Asp Thr		350
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&lt;210&gt; 5697

&lt;211&gt; 3362

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5697

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&lt;210&gt; 5698

&lt;211&gt; 403

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5698

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Thr	Ser	Arg	Gly	Cys	Gly	Leu	Asp	Leu	Leu	Pro	Gln	Tyr	Val	Ser	Leu
		35				40					45				
Cys	Asp	Leu	Asp	Ala	Ile	Trp	Gly	Ile	Val	Val	Glu	Ala	Val	Ala	Gly
	50				55					60					
Ala	Gly	Ala	Leu	Ile	Thr	Leu	Leu	Leu	Met	Leu	Ile	Leu	Leu	Val	Arg
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Leu	Pro	Phe	Ile	Lys	Glu	Lys	Glu	Lys	Lys	Ser	Pro	Val	Gly	Leu	His
			85					90						95	
Phe	Leu	Phe	Leu	Leu	Gly	Thr	Leu	Gly	Leu	Phe	Gly	Leu	Thr	Phe	Ala
			100					105					110		
Phe	Ile	Ile	Gln	Glu	Asp	Glu	Thr	Ile	Cys	Ser	Val	Arg	Arg	Phe	Leu
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Gln Leu Val Gly Leu	Ala Leu Cys Leu Met Leu	Val Gln Val Ile Ile		
	165	170	175	
Ala Val Glu Trp Leu	Val Leu Thr Val Leu Arg	Asp Thr Arg Pro Ala		
	180	185	190	
Cys Ala Tyr Glu Pro	Met Asp Phe Val Met Ala	Leu Ile Tyr Asp Met		
	195	200	205	
Val Leu Leu Val Val	Thr Leu Gly Leu Ala Leu	Phe Thr Leu Cys Gly		
210	215	220		
Lys Phe Lys Arg Trp	Lys Leu Asn Gly Ala Phe	Leu Leu Ile Thr Ala		
225	230	235	240	
Phe Leu Ser Val Leu	Ile Trp Val Ala Trp Met	Thr Met Tyr Leu Phe		
	245	250	255	
Gly Asn Val Lys Leu	Gln Gln Gly Asp Ala Trp	Asn Asp Pro Thr Leu		
	260	265	270	
Ala Ile Thr Leu Ala	Ala Ser Gly Trp Val Phe	Val Ile Phe His Ala		
	275	280	285	
Ile Pro Glu Ile His	Cys Thr Leu Leu Pro Ala	Leu Gln Glu Asn Thr		
290	295	300		
Pro Asn Tyr Phe Asp	Thr Ser Gln Pro Arg Met	Arg Glu Thr Ala Phe		
305	310	315	320	
Glu Glu Asp Val Gln	Leu Pro Arg Ala Tyr Met	Glu Asn Lys Ala Phe		
	325	330	335	
Ser Met Asp Glu His	Asn Ala Ala Leu Arg Thr	Ala Gly Phe Pro Asn		
	340	345	350	
Gly Ser Leu Gly Lys	Arg Pro Ser Gly Ser Leu	Gly Lys Arg Pro Ser		
	355	360	365	
Ala Pro Phe Arg Ser	Asn Val Tyr Gln Pro Thr	Glu Met Ala Val Val		
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Leu Asn Gly Gly Thr	Ile Pro Thr Ala Pro Pro	Ser His Thr Gly Arg		
385	390	395	400	
His Leu Trp				

&lt;210&gt; 5699

&lt;211&gt; 1565

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5699

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240

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<211> 197

<212> PRT

<213> Homo sapiens

<400> 5700

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<210> 5701
<211> 1885
<212> DNA
<213> Homo sapiens
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&lt;210&gt; 5702

&lt;211&gt; 348

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5702

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Pro	Pro	Pro	Leu	Ala	Pro	Asn	Ile	Ser	Val	Pro	His	Arg	Cys	Leu	Leu
			20					25					30		
Leu	Leu	Tyr	Glu	Asp	Ile	Gly	Thr	Ser	Arg	Val	Arg	Tyr	Trp	Asp	Leu
		35				40						45			
Leu	Leu	Leu	Ile	Pro	Asn	Val	Leu	Phe	Leu	Ile	Phe	Leu	Leu	Trp	Lys
		50			55					60					
Leu	Pro	Ser	Ala	Arg	Ala	Lys	Ile	Arg	Ile	Thr	Ser	Ser	Pro	Ile	Phe

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Ile Thr Phe Tyr	Ile Leu Val Phe Val Val	Ala Leu Val Gly	Ile Ala			
	85	90	95			
Arg Ala Val Val	Ser Met Thr Val Ser Thr	Ser Asn Ala Ala	Thr Val			
	100	105	110			
Ala Asp Lys Ile	Leu Trp Glu Ile Thr Arg	Phe Phe Leu Leu	Ala Ile			
	115	120	125			
Glu Leu Ser Val	Ile Ile Leu Gly Leu Ala	Phe Gly His Leu	Glu Ser			
	130	135	140			
Lys Ser Ser Ile	Lys Arg Val Leu Ala Ile Thr	Thr Val Leu Ser	Leu			
	145	150	155	160		
Ala Tyr Ser Val	Thr Gln Gly Thr Leu Glu Ile	Leu Tyr Pro Asp	Ala			
	165	170	175			
His Leu Ser Ala	Glu Asp Phe Asn Ile Tyr Gly	His Gly Gly Arg	Gln			
	180	185	190			
Phe Trp Leu Val	Ser Ser Cys Phe Phe Phe Leu	Val Tyr Ser Leu	Val			
	195	200	205			
Val Ile Leu Pro	Lys Thr Pro Leu Lys Glu Arg	Ile Ser Leu Pro	Ser			
	210	215	220			
Arg Arg Ser Phe	Tyr Val Tyr Ala Gly Ile Leu Ala	Leu Leu Asn Leu				
	225	230	235	240		
Leu Gln Gly Leu	Gly Ser Val Leu Leu Cys Phe Asp	Ile Ile Glu Gly				
	245	250	255			
Leu Cys Cys Val	Asp Ala Thr Thr Phe Leu Tyr Phe	Ser Phe Phe Ala				
	260	265	270			
Pro Leu Ile Tyr	Val Ala Phe Leu Arg Gly Phe Phe	Gly Ser Glu Pro				
	275	280	285			
Lys Ile Leu Phe	Xaa Leu Gln Met Pro Ser Gly Arg	Asp Arg Gly Ala				
	290	295	300			
Arg Cys Thr Pro	Thr Pro Ala Leu Arg Cys Gly Pro	Ala Gly Gly Pro				
	305	310	315	320		
Gly Gly Cys Arg	Gly Cys Trp Gly Leu Ser Cys Gln	Leu Leu Glu His				
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&lt;210&gt; 5703

&lt;211&gt; 1496

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5703

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 1496

&lt;210&gt; 5704

&lt;211&gt; 269

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5704

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&lt;211&gt; 768

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5705

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&lt;210&gt; 5709

&lt;211&gt; 1805

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5709

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660



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 1200  
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&lt;210&gt; 5710

&lt;211&gt; 441

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5710

Asn	Leu	Thr	Pro	Leu	Val	Asp	Met	Glu	Glu	Leu	Glu	Met	Ser	Gly	Asn
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His	Phe	Pro	Glu	Ile	Arg	Pro	Gly	Ser	Phe	His	Gly	Leu	Ser	Ser	Leu
			20					25					30		
Lys	Lys	Leu	Trp	Val	Met	Asn	Ser	Gln	Val	Ser	Leu	Ile	Glu	Arg	Asn
		35					40					45			
Ala	Phe	Asp	Gly	Leu	Ala	Ser	Leu	Val	Glu	Leu	Asn	Leu	Ala	His	Asn

50	55	60
Asn Leu Ser Ser Leu Pro His Asp Leu Phe Thr Pro Leu Arg Tyr Leu		
65	70	75
Val Glu Leu His Leu His His Asn Pro Trp Asn Cys Asp Cys Asp Ile		80
	85	90
Leu Trp Leu Ala Trp Trp Leu Arg Glu Tyr Ile Pro Thr Asn Ser Thr		95
	100	105
Cys Cys Gly Arg Cys His Ala Pro Met His Met Arg Gly Arg Tyr Leu		110
	115	120
Val Glu Val Asp Gln Ala Ser Phe Gln Cys Ser Ala Pro Phe Ile Met		125
	130	135
Asp Ala Pro Arg Asp Leu Asn Ile Ser Glu Gly Arg Met Ala Glu Leu		140
145	150	155
Lys Cys Arg Thr Pro Pro Met Ser Ser Val Lys Trp Leu Leu Pro Asn		160
	165	170
Gly Thr Val Leu Ser His Ala Ser Arg His Pro Arg Ile Ser Val Leu		175
	180	185
Asn Asp Gly Thr Leu Asn Phe Ser His Val Leu Leu Ser Asp Thr Gly		190
	195	200
Val Tyr Thr Cys Met Val Thr Asn Val Ala Gly Asn Ser Asn Ala Ser		205
	210	215
Ala Tyr Leu Asn Val Ser Thr Ala Glu Leu Asn Thr Ser Asn Tyr Ser		220
225	230	235
Phe Phe Thr Thr Val Thr Val Glu Thr Thr Glu Ile Ser Pro Glu Asp		240
	245	250
Thr Thr Arg Lys Tyr Lys Pro Val Pro Thr Thr Ser Thr Gly Tyr Gln		255
	260	265
Pro Ala Tyr Thr Thr Ser Thr Thr Val Leu Ile Gln Thr Thr Arg Val		270
	275	280
Pro Lys Gln Val Ala Val Pro Ala Thr Asp Thr Thr Asp Lys Met Gln		285
	290	295
Thr Ser Leu Asp Glu Val Met Lys Thr Thr Lys Ile Ile Ile Gly Cys		300
305	310	315
Phe Val Ala Val Thr Leu Leu Ala Ala Ala Met Leu Ile Val Phe Tyr		320
	325	330
Lys Leu Arg Lys Arg His Gln Gln Arg Ser Thr Val Thr Ala Ala Arg		335
	340	345
Thr Val Glu Ile Ile Gln Val Asp Glu Asp Ile Pro Ala Ala Thr Ser		350
	355	360
Ala Ala Ala Thr Ala Ala Pro Ser Gly Val Ser Gly Glu Gly Ala Val		365
	370	375
Val Leu Pro Thr Ile His Asp His Ile Asn Tyr Asn Thr Tyr Lys Pro		380
385	390	395
Ala His Gly Ala His Trp Thr Glu Asn Ser Leu Gly Asn Ser Leu His		400
	405	410
Pro Thr Val Thr Thr Ile Ser Glu Pro Tyr Ile Ile Gln Thr His Thr		415
	420	425
Lys Asp Lys Val Gln Glu Thr Gln Ile		430
	435	440

&lt;210&gt; 5711

&lt;211&gt; 1142

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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 120  
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 180  
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 1140  
 1142

<210> 5712

<211> 145

<212> PRT

<213> Homo sapiens

<400> 5712

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Arg	Ile	Leu	Phe	His	Gly	Val	Phe	Tyr	Ala	Gly	Gly	Phe	Ala	Ile	Val
			20					25					30		
Tyr	Tyr	Leu	Ile	Gln	Lys	Phe	His	Ser	Arg	Ala	Leu	Tyr	Tyr	Lys	Leu
		35					40					45			

Ala Val Glu Gln Leu Gln Ser His Pro Glu Ala Gln Glu Ala Leu Gly  
 50 55 60  
 Pro Pro Leu Asn Ile His Tyr Leu Lys Leu Ile Asp Arg Glu Asn Phe  
 65 70 75 80  
 Val Asp Ile Val Asp Ala Lys Leu Lys Ile Pro Val Ser Gly Ser Lys  
 85 90 95  
 Ser Glu Gly Leu Leu Tyr Val His Ser Ser Arg Gly Gly Pro Phe Gln  
 100 105 110  
 Arg Trp His Leu Asp Glu Val Phe Leu Glu Leu Lys Asp Gly Gln Gln  
 115 120 125  
 Ile Pro Val Phe Lys Leu Ser Gly Glu Asn Gly Asp Glu Val Lys Lys  
 130 135 140  
 Glu  
 145

&lt;210&gt; 5713

&lt;211&gt; 1996

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5713

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 180  
 acggaaatgc gcgagatgga cctgcaggtg cagaatgcaa tggatcaact agaacaaaga  
 240  
 gtcagtgaat tctttatgaa tgcaaagaaa aataaacctg agtggaggga agagcaaag  
 300  
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 360  
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 960

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 1080  
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 1980  
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 1996

&lt;210&gt; 5714

&lt;211&gt; 408

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5714

Ile	Glu	Gln	Leu	Pro	Met	Asp	Leu	Arg	Asp	Arg	Phe	Thr	Glu	Met	Arg
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Glu	Met	Asp	Leu	Gln	Val	Gln	Asn	Ala	Met	Asp	Gln	Leu	Glu	Gln	Arg
			20					25					30		
Val	Ser	Glu	Phe	Phe	Met	Asn	Ala	Lys	Lys	Asn	Lys	Pro	Glu	Trp	Arg
			35				40					45			
Glu	Glu	Gln	Met	Ala	Ser	Ile	Lys	Lys	Asp	Tyr	Tyr	Lys	Ala	Leu	Glu
			50				55					60			
Asp	Ala	Asp	Glu	Lys	Val	Gln	Leu	Ala	Asn	Gln	Ile	Tyr	Asp	Leu	Val
65					70					75				80	
Asp	Arg	His	Leu	Arg	Lys	Leu	Asp	Gln	Glu	Leu	Ala	Lys	Phe	Lys	Met

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720  
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1458

&lt;210&gt; 5716

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5716

Leu Gln Glu Glu Val Arg Val Lys Ile Lys Asp Leu Asn Glu His Ile

1

5

10

15

Val Cys Cys Leu Cys Ala Gly Tyr Phe Val Asp Ala Thr Thr Ile Thr



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 Glu Cys Leu His Thr Phe Cys Lys Ser Cys Ile Val Lys Tyr Leu Gln  
 35 40 45  
 Thr Ser Lys Tyr Cys Pro Met Cys Asn Ile Lys Ile His Glu Thr Gln  
 50 55 60  
 Pro Leu Leu Asn Leu Lys Leu Asp Arg Val Met Gln Asp Ile Val Tyr  
 65 70 75 80  
 Lys Leu Val Pro Gly Leu Gln Asp Ser Glu Glu Lys Arg Ile Arg Glu  
 85 90 95  
 Phe Tyr Gln Ser Arg Gly Leu Asp Arg Val Thr Gln Pro Thr Gly Glu  
 100 105 110  
 Glu Pro Ala Leu Ser Asn Leu Gly Leu Pro Phe Ser Ser Phe Asp His  
 115 120 125  
 Ser Lys Ala His Tyr Tyr Arg Tyr Asp Glu Gln Leu Asn Leu Cys Leu  
 130 135 140  
 Glu Arg Leu Arg  
 145

&lt;210&gt; 5717

&lt;211&gt; 1419

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5717

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 1419

&lt;210&gt; 5718

&lt;211&gt; 228

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5718

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			20					25					30		
Thr	Val	His	Gly	Asn	Val	Ile	Thr	Thr	Asn	Thr	Ile	Phe	Glu	Asn	Leu
		35					40					45			
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Phe	Pro	Ser	Met	Leu	Ala	Leu	Ser	Gly	Tyr	Ile	Gln	Ala	Cys	Arg	Ala
65				70					75					80	
Leu	Met	Ile	Thr	Ala	Ile	Leu	Leu	Gly	Phe	Leu	Gly	Leu	Leu	Leu	Gly
			85					90					95		
Ile	Ala	Gly	Leu	Arg	Cys	Thr	Asn	Ile	Gly	Gly	Leu	Glu	Leu	Ser	Arg
			100					105					110		
Lys	Ala	Lys	Leu	Ala	Ala	Thr	Ala	Gly	Ala	Leu	His	Ile	Leu	Ala	Gly
		115						120				125			
Ile	Cys	Gly	Met	Val	Ala	Ile	Ser	Trp	Tyr	Ala	Phe	Asn	Ile	Thr	Arg
	130					135					140				
Asp	Phe	Phe	Asp	Pro	Leu	Tyr	Pro	Gly	Thr	Lys	Tyr	Glu	Leu	Gly	Pro
145				150						155				160	
Ala	Leu	Tyr	Leu	Gly	Trp	Ser	Ala	Ser	Leu	Ile	Ser	Ile	Leu	Gly	Gly
			165					170					175		
Leu	Cys	Leu	Cys	Ser	Ala	Cys	Cys	Cys	Gly	Ser	Asp	Glu	Asp	Pro	Ala
		180						185				190			
Ala	Ser	Ala	Arg	Arg	Pro	Tyr	Gln	Ala	Pro	Val	Ser	Val	Met	Pro	Val
		195					200					205			
Ala	Thr	Ser	Asp	Gln	Glu	Gly	Asp	Ser	Ser	Phe	Gly	Lys	Tyr	Gly	Arg
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Asn	Ala	Tyr	Val												

225

&lt;210&gt; 5719

&lt;211&gt; 2267

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5719

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120  
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180  
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 2267

&lt;210&gt; 5720

&lt;211&gt; 455

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5720

Val	Pro	Val	Leu	His	Lys	His	Pro	Cys	His	Leu	Val	Thr	Ser	Pro	Pro
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Gln	Gln	Gln	Arg	Gly	His	Gly	Ala	Val	His	Ala	Ala	Gly	Gln	Gly	Ala
			20					25					30		
His	Asp	Val	Pro	Gln	Gly	Leu	His	Pro	Pro	Val	Ala	Pro	Ser	Gly	Gly
		35					40					45			
Val	Asp	Ser	Ala	Val	Ala	Ala	Leu	Leu	Leu	Arg	Arg	Arg	Gly	Tyr	Gln
	50					55					60				
Val	Thr	Gly	Val	Phe	Met	Lys	Asn	Trp	Asp	Ser	Leu	Asp	Glu	His	Gly
65					70					75				80	
Val	Cys	Thr	Ala	Asp	Lys	Asp	Cys	Glu	Asp	Ala	Tyr	Arg	Val	Cys	Gln
			85						90				95		
Ile	Leu	Asp	Ile	Pro	Phe	His	Gln	Val	Ser	Tyr	Val	Lys	Glu	Tyr	Trp
			100					105					110		
Asn	Asp	Val	Phe	Ser	Asp	Phe	Leu	Asn	Glu	Tyr	Glu	Lys	Gly	Arg	Thr
		115					120						125		
Pro	Asn	Pro	Asp	Ile	Val	Cys	Asn	Lys	His	Ile	Lys	Phe	Ser	Cys	Phe

130	135	140
Phe His Tyr Ala Val Asp Asn Leu Gly Ala Asp Ala Ile Ala Thr Gly		
145	150	155
His Tyr Ala Arg Thr Ser Leu Glu Asp Glu Glu Val Phe Glu Gln Lys		160
	165	170
His Val Lys Lys Pro Glu Gly Leu Phe Arg Asn Arg Phe Glu Val Arg		175
	180	185
Asn Ala Val Lys Leu Leu Gln Ala Ala Asp Ser Phe Lys Asp Gln Thr		190
	195	200
Phe Phe Leu Ser Gln Val Ser Gln Asp Ala Leu Arg Arg Thr Ile Phe		205
	210	215
Pro Leu Gly Gly Leu Thr Lys Glu Phe Val Lys Lys Ile Ala Ala Glu		220
	225	230
Asn Arg Leu His His Val Leu Gln Lys Lys Glu Ser Met Gly Met Cys		235
	245	250
Phe Ile Gly Lys Arg Asn Phe Glu His Phe Leu Leu Gln Tyr Leu Gln		255
	260	265
Pro Arg Pro Gly His Phe Ile Ser Ile Glu Asp Asn Lys Val Leu Gly		270
	275	280
Thr His Lys Gly Trp Phe Leu Tyr Thr Leu Gly Gln Arg Ala Asn Ile		285
	290	295
Gly Gly Leu Arg Glu Pro Trp Tyr Val Val Glu Lys Asp Ser Val Lys		300
	305	310
Gly Asp Val Phe Val Ala Pro Arg Thr Asp His Pro Ala Leu Tyr Arg		315
	325	330
Asp Leu Leu Arg Thr Ser Arg Val His Trp Ile Ala Glu Glu Pro Pro		335
	340	345
Ala Ala Leu Val Arg Asp Lys Met Met Glu Cys His Phe Arg Phe Arg		350
	355	360
His Gln Met Ala Leu Val Pro Cys Val Leu Thr Leu Asn Gln Asp Gly		365
	370	375
Thr Val Trp Val Thr Ala Val Gln Ala Val Arg Ala Leu Ala Thr Gly		380
	385	390
Gln Phe Ala Val Phe Tyr Lys Gly Asp Glu Cys Leu Gly Ser Gly Lys		395
	405	410
Ile Leu Arg Leu Gly Pro Ser Ala Tyr Thr Leu Gln Lys Gly Gln Arg		415
	420	425
Arg Ala Gly Met Ala Thr Glu Ser Pro Ser Asp Ser Pro Glu Asp Gly		430
	435	440
Pro Gly Leu Ser Pro Leu Leu		445
	450	455

&lt;210&gt; 5721

&lt;211&gt; 400

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5721

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60

cttatggttag ctatgggata tcatgagaag ggcagagctt tcctgaaaag aaaagaatat

120

ggaatagcct tgccatgtct gttggacgct gacaaatatt tctggtgggc gcttttgtac

180

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 tgagactgca gactttcatc tacaacagtg gttaatgtaa aagagtagtt atggtgtaaa  
 300  
 ctggtgaatt tcttcttccc tttgtatttc taattgacct ttcctccctg taaagaaaag  
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 400

<210> 5722  
 <211> 80  
 <212> PRT  
 <213> Homo sapiens

<400> 5722  
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 Glu Arg Lys Ala Leu Met Leu Ala Met Gly Tyr His Glu Lys Gly Arg  
 20 25 30  
 Ala Phe Leu Lys Arg Lys Glu Tyr Gly Ile Ala Leu Pro Cys Leu Leu  
 35 40 45  
 Asp Ala Asp Lys Tyr Phe Trp Trp Ala Leu Leu Tyr Leu Val Asn Thr  
 50 55 60  
 Ser Phe Lys Glu Asp Gly Pro Asp Tyr Thr Glu His Leu Pro Cys Pro  
 65 70 75 80

<210> 5723  
 <211> 376  
 <212> DNA  
 <213> Homo sapiens

<400> 5723  
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 120  
 ctgctttcta aagagtgggtg gcatgccgga ctcagcggag ccatgtggca tggatgggtg  
 180  
 gcttccattt gcagcggatg tctgctctca gatgaaggca caggctgccc ctgcctgccc  
 240  
 cagcatgccc cctgccttgc atgccccctg ccctgcatgt cacctgtect acacatcccc  
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 376

<210> 5724  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 5724  
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Leu	Lys	Ala	Arg	Lys	Asn	Val	Glu	Ser	Phe	Leu	Glu	Ala	Cys	Arg	Lys		
			20					25					30				
Met	Gly	Val	Pro	Glu	Val	Trp	Gly	Leu	Leu	Ser	Lys	Glu	Trp	Trp	His		
		35					40					45					
Ala	Gly	Leu	Ser	Gly	Ala	Met	Trp	His	Gly	Trp	Trp	Ala	Ser	Ile	Cys		
	50					55					60						
Ser	Gly	Cys	Leu	Leu	Ser	Asp	Glu	Gly	Thr	Gly	Cys	Pro	Cys	Leu	Pro		
65					70					75				80			
Gln	His	Ala	Pro	Cys	Pro	Ala	Cys	Pro	Leu	Pro	Cys	Met	Ser	Pro	Val		
			85					90					95				
Leu	His	Ile	Pro	Cys	Pro	Ala	Gly	Pro	Ile	Leu	Ser	Cys	Met	Ser	Pro		
			100					105					110				
Val	Leu	His	Met	Pro	Cys	Pro	Ala	Leu	Leu	Leu	His	Ala					
		115					120					125					

&lt;210&gt; 5725

&lt;211&gt; 1160

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5725

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 120  
 accgcgcacg ggcgagcatg gggggcaagc agagcacggc gaccgctcc cgggggcccc  
 180  
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 420  
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 480  
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 540  
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 660  
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 720  
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 900  
 gcagagctga gcttgggaca ccagcgggaa cagggcaccc cttctgcact gacttccaga  
 960



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 1160

<210> 5726

<211> 273

<212> PRT

<213> Homo sapiens

<400> 5726

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			20					25					30		
Ser	Arg	Pro	Pro	Gly	Ser	Arg	Pro	Thr	Ala	His	Gly	Arg	Ala	Trp	Gly
		35					40				45				
Ala	Ser	Arg	Ala	Arg	Arg	Pro	Ala	Pro	Gly	Gly	Pro	Phe	Pro	Gly	Val
	50					55					60				
Ser	Thr	Asp	Asp	Ser	Ala	Val	Pro	Pro	Pro	Gly	Gly	Ala	Pro	His	Phe
65					70					75				80	
Gly	His	Tyr	Arg	Thr	Gly	Gly	Gly	Ala	Met	Gly	Leu	Arg	Ser	Ala	Ser
				85					90					95	
Val	Ser	Ser	Val	Ala	Gly	Met	Gly	Met	Asp	Pro	Ser	Thr	Ala	Gly	Gly
			100					105					110		
Val	Pro	Phe	Gly	Leu	Tyr	Thr	Pro	Ala	Ser	Arg	Gly	Thr	Gly	Asp	Ser
		115					120						125		
Glu	Arg	Ala	Pro	Gly	Gly	Gly	Gly	Ser	Ala	Ser	Asp	Ser	Thr	Tyr	Ala
	130					135					140				
His	Gly	Asn	Gly	Tyr	Gln	Glu	Thr	Gly	Gly	Gly	His	His	Arg	Asp	Gly
145					150					155					160
Met	Leu	Tyr	Leu	Gly	Ser	Arg	Ala	Ser	Leu	Ala	Asp	Ala	Leu	Pro	Leu
			165						170					175	
His	Ile	Ala	Pro	Arg	Trp	Phe	Ser	Ser	His	Ser	Gly	Phe	Lys	Cys	Pro
		180						185					190		
Ile	Cys	Ser	Lys	Ser	Val	Ala	Ser	Asp	Glu	Met	Glu	Met	His	Phe	Ile
		195					200					205			
Met	Cys	Leu	Ser	Lys	Pro	Arg	Leu	Ser	Tyr	Asn	Asp	Asp	Val	Leu	Thr
	210					215					220				
Lys	Asp	Ala	Gly	Glu	Cys	Val	Ile	Cys	Leu	Glu	Glu	Leu	Leu	Gln	Gly
225					230					235					240
Asp	Thr	Ile	Ala	Arg	Leu	Pro	Cys	Leu	Cys	Ile	Tyr	His	Lys	Ser	Cys
			245						250					255	
Ile	Asp	Ser	Trp	Phe	Glu	Val	Asn	Arg	Ser	Cys	Pro	Glu	His	Pro	Ala
		260						265						270	

Asp

<210> 5727

<211> 1237

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5727

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120  
gagatcctaa ggaccttgag ccccgaggag ctagagcagc tggactgcga actacaggag  
180  
atggatcctg agaacatgct cctgccagct ggactaagac aacgtgacca gacaaagaag  
240  
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720  
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1200  
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1237

&lt;210&gt; 5728

&lt;211&gt; 368

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5728

Xaa Arg Arg Glu Val Thr Thr Arg Thr Gly Ser Val Ser Thr Thr Gln

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<210> 5729
<211> 381
<212> DNA
<213> Homo sapiens
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4891

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 180  
 gccaaagtaat tcgtggcaaa gaaacgtgtt ctcagcactt tgccctccca gggccaagca  
 240  
 gggggccact cacctgcttg cgtctcaggc gtccctcctg gaccttcctc cgcaggaacc  
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 360  
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<210> 5730

<211> 64

<212> PRT

<213> Homo sapiens

<400> 5730

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Ala	Gly	Gly	His	Ser	Pro	Ala	Cys	Val	Ser	Gly	Val	Pro	Pro	Gly	Pro
			20				25					30			
Ser	Ser	Ala	Gly	Thr	Ala	Ser	Ser	Ser	Pro	Ala	Ser	Gly	Thr	Cys	Gly
		35				40					45				
Gly	Ser	Ser	Ser	Ala	Gly	Gly	Ser	Ser	Ala	Arg	Phe	Cys	Thr	Lys	Phe
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<210> 5731

<211> 891

<212> DNA

<213> Homo sapiens

<400> 5731

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 120  
 attttgtag cacttgggaa cttcctggcc cagatgattg agaagaagcg gaaaaaagaa  
 180  
 aactctagaa gtctggatgt cgggtggcct ctgagatatg ccgtttacgg gttcttcttc  
 240  
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 300  
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 360  
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 420  
 aagatgaggg ggggcttctg gccggcgctg aggatgaact ggcgggtgtg gacgccacta  
 480  
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 540  
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 600

caggtgcact gtggacgtgg gtctgggggt ctcacccgcc cagcgagagc agaaccaatc  
 660  
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 720  
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 780  
 ggtggtgctg cccagaaaac ttaaaattta gtcgaggcag tttcaattgt tactgtggac  
 840  
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<210> 5732

<211> 193

<212> PRT

<213> Homo sapiens

<400> 5732

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Arg	Arg	Ala	Leu	Ala	Gln	Tyr	Leu	Leu	Phe	Leu	Arg	Leu	Tyr	Pro	Val
			20					25					30		
Leu	Thr	Lys	Ala	Ala	Thr	Ser	Gly	Ile	Leu	Ser	Ala	Leu	Gly	Asn	Phe
		35					40					45			
Leu	Ala	Gln	Met	Ile	Glu	Lys	Lys	Arg	Lys	Lys	Glu	Asn	Ser	Arg	Ser
	50					55					60				
Leu	Asp	Val	Gly	Gly	Pro	Leu	Arg	Tyr	Ala	Val	Tyr	Gly	Phe	Phe	Phe
65					70				75					80	
Thr	Gly	Pro	Leu	Ser	His	Phe	Phe	Tyr	Phe	Phe	Met	Glu	His	Trp	Ile
				85				90						95	
Pro	Pro	Glu	Val	Pro	Leu	Ala	Gly	Leu	Arg	Arg	Leu	Leu	Leu	Asp	Arg
			100					105						110	
Leu	Val	Phe	Ala	Pro	Ala	Phe	Leu	Met	Leu	Phe	Phe	Leu	Ile	Met	Asn
		115					120						125		
Phe	Leu	Glu	Gly	Lys	Asp	Ala	Ser	Ala	Phe	Ala	Ala	Lys	Met	Arg	Gly
	130					135						140			
Gly	Phe	Trp	Pro	Ala	Leu	Arg	Met	Asn	Trp	Arg	Val	Trp	Thr	Pro	Leu
145					150					155					160
Gln	Phe	Ile	Asn	Ile	Asn	Tyr	Val	Pro	Leu	Lys	Phe	Arg	Val	Leu	Phe
			165					170						175	
Ala	Asn	Leu	Ala	Ala	Leu	Phe	Trp	Tyr	Ala	Tyr	Leu	Ala	Ser	Leu	Gly
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Lys

<210> 5733

<211> 950

<212> DNA

<213> Homo sapiens

<400> 5733

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gtcagctata ctttcctctt ctggctgccc ctgtacatca cgaatgtgga tcaccttgat  
 180  
 gccaaaaagg cggggtgcac aggtagcccc gaccctctca ggcattccag ccacagaaca  
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&lt;210&gt; 5734

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5734

Xaa	His	Val	Val	Ile	Leu	Pro	Gly	Asp	Gly	Gly	Ser	Gly	Thr	Ala	Ala
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Ile	Ser	Phe	Thr	Gly	Ala	Leu	Lys	Ile	Pro	Gly	Val	Ile	Glu	Phe	Ser
			20					25					30		
Leu	Cys	Leu	Leu	Phe	Ala	Lys	Leu	Val	Ser	Tyr	Thr	Phe	Leu	Phe	Trp
		35					40					45			
Leu	Pro	Leu	Tyr	Ile	Thr	Asn	Val	Asp	His	Leu	Asp	Ala	Lys	Lys	Ala
	50					55				60					
Gly	Cys	Thr	Gly	Ser	Pro	Asp	Pro	Leu	Arg	His	Ser	Ser	His	Arg	Thr
65					70				75					80	
Ser	Lys														

&lt;210&gt; 5735

&lt;211&gt; 4241

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5735

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180  
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240  
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1620



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3240

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<210> 5736

<211> 327

<212> PRT

<213> Homo sapiens

<400> 5736

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			20					25					30		
Thr	Val	Arg	Gly	Glu	Arg	Ser	Tyr	Ser	Trp	Gly	Met	Ala	Val	Asn	Val
		35					40					45			
Tyr	Ser	Thr	Ser	Ile	Thr	Gln	Glu	Thr	Met	Ser	Arg	His	Asp	Ile	Ile
	50					55					60				
Ala	Trp	Val	Asn	Asp	Ile	Val	Ser	Leu	Asn	Tyr	Thr	Lys	Val	Glu	Gln
65					70					75				80	
Leu	Cys	Ser	Gly	Ala	Ala	Tyr	Cys	Gln	Phe	Met	Asp	Met	Leu	Phe	Pro
				85					90					95	
Gly	Cys	Ile	Ser	Leu	Lys	Lys	Val	Lys	Phe	Gln	Ala	Lys	Leu	Glu	His

[illegible]

<210> 5737

<211> 340

<212> DNA

<213> Homo sapiens

<400> 5737

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340

<210> 5738

<211> 99

<212> PRT

<213> Homo sapiens

&lt;400&gt; 5738

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Gln His Leu Pro Leu Arg Leu Gln Leu Pro Ser Gln Val His Gln Glu
      20           25           30
Thr Thr Gly His His Trp Gln Trp Arg Gly Asp Met Glu His Gly Leu
      35           40           45
Gly Ser Arg Leu Leu Ala Pro Asp Val Gln Pro Gln Thr Pro Pro Val
      50           55           60
Met Gly Glu Val Trp Arg Pro Val Gln Leu Ser Gln Gly His Ala His
65           70           75           80
Leu Ser Leu Gly Ser Val Gly Lys Ala Tyr Pro Lys Ser His Ile Gln
      85           90           95
Gly Gly Xaa

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&lt;210&gt; 5739

&lt;211&gt; 780

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5739

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ggcacataca tggctttact attttccaga gggccaactg cttttactga ataatccatt
120
ttactcgtta attggaaaca cctctagcct gtactaaatt tccatattta tttggcccgt
180
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360
aaataaaatc tctgggtatt tccaagggaa gtgaaggact gacaccatga ttagaaagca
420
gagccagcac catggcccgt ccctgagcat gtccagcaaa ccctgccagg ctctgcagct
480
cctgagcacc ctgccttcgg gtctgccagt gtgtgggggc cagaagagaa aaacaacca
540
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660
aaggccatgc cagagtccat cgttgcctcc accctacctg tgcaggaaac ctggacatca
720
ccacttcaag gccctacctt cctttctggg cagagcccaa ccacaataaa caggacgcgt
780

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&lt;210&gt; 5740

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5740

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Met Ile Arg Lys Gln Ser Gln His His Gly Pro Ser Leu Ser Met Ser
 1           5           10           15
Ser Lys Pro Cys Gln Ala Leu Gln Leu Leu Ser Thr Leu Pro Ser Gly
          20           25           30
Leu Pro Val Cys Gly Gly Gln Lys Arg Lys Thr Thr Gln Gly Glu Cys
          35           40           45
Leu Leu Pro Pro Ala Gly Lys Gln Leu Gly His His Leu Ser Glu Ser
          50           55           60
Arg Cys Cys Ser Ser Trp Gln Gln Ser His Ser Glu Arg Ser Cys Val
65           70           75           80
His Cys Leu Ser Gly Arg Pro Cys Gln Ser Pro Ser Leu Pro Pro Pro
          85           90           95
Tyr Leu Cys Arg Lys Pro Gly His His His Phe Lys Ala Leu Pro Ser
          100          105          110
Phe Leu Gly Arg Ala Gln Pro Gln
          115          120

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&lt;210&gt; 5741

&lt;211&gt; 2444 ..

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5741

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900

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2444

&lt;210&gt; 5742

&lt;211&gt; 427

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5742

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Pro	Gly	Val	Gly	Ala	Val	Gly	Gly	Gly	Ser	Pro	Glu	Arg	Glu	Glu	Val
			20					25					30		
Gly	Ala	Gly	Tyr	Asn	Ser	Glu	Asp	Glu	Tyr	Glu	Ala	Ala	Ala	Ala	Arg
		35					40					45			
Ile	Glu	Ala	Met	Asp	Pro	Ala	Thr	Val	Glu	Gln	Gln	Glu	His	Trp	Phe
	50					55					60				
Glu	Lys	Ala	Leu	Arg	Asp	Lys	Lys	Gly	Phe	Ile	Ile	Lys	Gln	Met	Lys
65					70				75					80	
Glu	Asp	Gly	Ala	Cys	Leu	Phe	Arg	Ala	Val	Ala	Asp	Gln	Val	Tyr	Gly
				85					90					95	
Asp	Gln	Asp	Met	His	Glu	Val	Val	Arg	Lys	His	Cys	Met	Asp	Tyr	Leu
			100					105					110		
Met	Lys	Asn	Ala	Asp	Tyr	Phe	Ser	Asn	Tyr	Val	Thr	Glu	Asp	Phe	Thr
		115						120					125		
Thr	Tyr	Ile	Asn	Arg	Lys	Arg	Lys	Asn	Asn	Cys	His	Gly	Asn	His	Ile
	130					135					140				
Glu	Met	Gln	Ala	Met	Ala	Glu	Met	Tyr	Asn	Arg	Pro	Val	Glu	Val	Tyr
145					150				155						160
Gln	Tyr	Ser	Thr	Glu	Pro	Ile	Asn	Thr	Phe	His	Gly	Ile	His	Gln	Asn
				165					170					175	
Glu	Asp	Glu	Pro	Ile	Arg	Val	Ser	Tyr	His	Arg	Asn	Ile	His	Tyr	Asn
			180					185					190		
Ser	Val	Val	Asn	Pro	Asn	Lys	Ala	Thr	Ile	Gly	Val	Gly	Leu	Gly	Leu
		195					200					205			
Pro	Ser	Phe	Lys	Pro	Gly	Phe	Ala	Glu	Gln	Ser	Leu	Met	Lys	Asn	Ala
	210					215					220				
Ile	Lys	Thr	Ser	Glu	Glu	Ser	Trp	Ile	Glu	Gln	Gln	Met	Leu	Glu	Asp
225					230					235					240
Lys	Lys	Arg	Ala	Thr	Asp	Trp	Glu	Ala	Thr	Asn	Glu	Ala	Ile	Glu	Glu
				245					250					255	
Gln	Val	Ala	Arg	Glu	Ser	Tyr	Leu	Gln	Trp	Leu	Arg	Asp	Gln	Glu	Lys
			260					265					270		
Gln	Ala	Arg	Gln	Val	Arg	Gly	Pro	Ser	Gln	Pro	Arg	Lys	Ala	Ser	Ala
		275					280					285			
Thr	Cys	Ser	Ser	Ala	Thr	Ala	Ala	Ala	Ser	Ser	Gly	Leu	Glu	Glu	Trp
	290					295					300				
Thr	Ser	Arg	Ser	Pro	Arg	Gln	Arg	Ser	Ser	Ala	Ser	Ser	Pro	Glu	His
305					310					315					320
Pro	Glu	Leu	His	Ala	Glu	Leu	Gly	Met	Lys	Pro	Pro	Ser	Pro	Gly	Thr
				325					330					335	
Val	Leu	Ala	Leu	Ala	Lys	Pro	Pro	Ser	Pro	Cys	Ala	Pro	Gly	Thr	Ser
			340					345					350		
Ser	Gln	Phe	Ser	Ala	Gly	Ala	Asp	Arg	Ala	Thr	Ser	Pro	Leu	Val	Ser
		355					360					365			
Leu	Tyr	Pro	Ala	Leu	Glu	Cys	Arg	Ala	Leu	Ile	Gln	Gln	Met	Ser	Pro
	370					375					380				
Ser	Ala	Phe	Gly	Leu	Asn	Asp	Trp	Asp	Asp	Asp	Glu	Ile	Leu	Ala	Ser



```

385              390              395              400
Val Leu Ala Val Ser Gln Gln Glu Tyr Leu Asp Ser Met Lys Lys Asn
              405              410              415
Lys Val His Arg Asp Pro Pro Pro Asp Lys Ser
              420              425

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<210> 5743
<211> 550
<212> DNA
<213> Homo sapiens
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<400> 5743
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120
gcgtctcagg cgtcctctct ggaccttccc ctatctggct gggcggacac tggtaggatt
180
gcggtggagc cacatgtcct gcggtcccgg tatccagtct gggcaggaag cagcggggcg
240
tgagccagct ctccaggggg ctgacggaca tcttcttggg gaccagcatc tcctccagct
300
ccagctgggc ccccttgcca gggagagagg ccgccctacc tgggccggcc ggcgatgtgc
360
tgtaaagggg cccgcagacc cggctgccc actccagaga cgggccaaagg cgggcggccg
420
ccgaaaggtc ccagaacggg gaggccggcc ccctccccgg gttcaccccc gcgcgaatcg
480
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540
ggcgccctca
550

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<210> 5744
<211> 95
<212> PRT
<213> Homo sapiens
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<400> 5744
Arg Thr Ser Ser Trp Gly Pro Ala Ser Pro Pro Ala Pro Ala Gly Pro
 1          5          10          15
Pro Cys Glu Gly Glu Arg Pro Pro Tyr Leu Gly Arg Pro Ala Met Cys
          20          25          30
Cys Lys Gly Ala Arg Arg Pro Gly Cys Pro Thr Pro Glu Thr Gly Gln
          35          40          45
Gly Gly Arg Pro Pro Lys Gly Pro Arg Thr Gly Arg Pro Ala Pro Ser
          50          55          60
Pro Gly Ser Pro Pro Arg Glu Ser Arg Cys Leu Ala Pro Xaa Asp Pro
65          70          75          80
Leu Gly Trp Thr Pro Gly Pro Pro Ala Ala Ala Pro Gly Ala Leu
          85          90          95

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<210> 5745  
<211> 849

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5745

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60  
cgataaaaaa caccagggca cggacactcc aggggaaatg cttattgagt aaagtatccg  
120  
aggaagtgat gcagggcagg taaacagctg gtgctcagca gcgagaggac gcgtcactct  
180  
gccgttctgc agggtgacgc cctccccgta cctcgctgag agccacctgc agacacagca  
240  
ggccacagca gaatgcacag gtcactgttg taggggaaca aatcgtaatg cccagagaaa  
300  
acctgatagt gaaatgtaaa cagacaggac agggtggttc caggtggcca ccaccgccag  
360  
gcccttcccg tgattgatct gagagcttca cagccggcgg cactgggacc catttccaga  
420  
aacactggaa caccaggtct ctcagatgcc cgcgggaggg gccccaggga ggcctttctc  
480  
agcatcagct tttgggtgac aaaccccata cagcaaaact gtacaaatac acacaacgga  
540  
ccccagctg acagtgagac caggacccta ggaaggtcag gtggtggtga agtcatcccc  
600  
tctccaaccg agcagagcct ggggttgggc tctgatgacc tcccgggcaa agtgtccagg  
660  
tggaggaagc aaactcccaa atggggcaca aaggtaataa aaagcagctg agagattgcg  
720  
ggatggggtc ggggccactt ggccgacacc ttctgcctcg cctggccggg ccggggccagc  
780  
ctctgccac aggatggagg gtgactgtgc accctgctcc atgtacagga cgggttgagg  
840  
gtcccatgg  
849

&lt;210&gt; 5746

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5746

Met Thr Ser Pro Pro Pro Asp Leu Pro Arg Val Leu Val Ser Leu Ser  
1 5 10 15  
Ala Gly Gly Pro Leu Cys Val Phe Val Gln Phe Cys Cys Met Gly Phe  
20 25 30  
Val Thr Gln Lys Leu Met Leu Arg Lys Ala Ser Leu Gly Pro Leu Pro  
35 40 45  
Arg Ala Ser Glu Arg Pro Gly Val Pro Val Phe Leu Glu Met Gly Pro  
50 55 60  
Ser Ala Ala Gly Cys Glu Ala Leu Arg Ser Ile Thr Gly Arg Ala Trp  
65 70 75 80  
Arg Trp Trp Pro Pro Gly Thr Thr Leu Ser Cys Leu Phe Thr Phe His  
85 90 95  
Tyr Gln Val Phe Ser Gly His Tyr Asp Leu Phe Pro Tyr Asn Ser Asp

			100					105					110				
Leu	Cys	Ile	Leu	Leu	Trp	Pro	Ala	Val	Ser	Ala	Gly	Gly	Ser	Gln	Arg		
		115						120					125				
Gly	Thr	Gly	Arg	Ala	Ser	Pro	Cys	Arg	Thr	Ala	Glu						
		130						135					140				

<210> 5747  
 <211> 1999  
 <212> DNA  
 <213> Homo sapiens

<400> 5747  
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 120  
 actcggggcg ccggggaccc ggcccggtag ctcagccccg gctggggcag cgcgagcgag  
 180  
 gaggagccga gccgcgggca cagtggcacc actgcaagtg gaggtgagaa cgagcgtgag  
 240  
 gacctggagc aggagtggaa gccccggat gaggagtga tcaagaaact ggtggatcag  
 300  
 atcgaattct acttttctga tgaaaacctg gagaaggacg cttttttgct aaaacacgtg  
 360  
 aggaggaaca agctgggata tgtgagcgtt aagctactca catccttcaa aaaggtgaaa  
 420  
 catcttacac gggactggag aaccacagca catgctttga agtattcagt ggtccttgag  
 480  
 ttgaatgagg accaccggaa ggtgaggagg accacccccg tccactgtt cccaacgag  
 540  
 aacctcccca gcaagatgct cctggtctat gatctctact tgtctcctaa gctgtgggct  
 600  
 ctggccaccc ccagaagaa tggaagggtg caagagaagg tgatggaaca cctgctcaag  
 660  
 cttttcgga cttttggagt catctcatca gtgcggatcc tcaaacctgg gagagagctg  
 720  
 cccctgaca tccggaggat cagcagccgc tacagccaag tggggaccca ggagtgtgcc  
 780  
 atcgtggagt tcgaggaggt ggaagcagcc atcaaagccc atgagttcat gatcacagaa  
 840  
 tctcagggca aagagaacat gaaagctgtc ctgattggta tgaagccacc caaaaagaaa  
 900  
 cctgccaaag acaaaaatca tgacgaggag cccactgcga gcatccacct gaacaagtcc  
 960  
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 1020  
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 1080  
 aagctcagcc cgtctggcca ccagaatctc tttctgagtc caaatgcctc cccgtgcaca  
 1140  
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 1200  
 gaggaaggta gactgaactg cagcaccagc cctgagatct tccgcaagtg tatggattat  
 1260

tcctctgaca gcagcgtcac tccctctggc agcccctggg tccggaggcg tcgccaagcc  
 1320  
 gagatgggga cccaggagaa aagccccggt acgagtcgcc tgctctcccg gaagatgcag  
 1380  
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 1440  
 ggatttcatg gccatgagag gagcaggggc tgtgtataaa taccttctat ttttaataca  
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 agtccactg aaaaccacct tcgttttcaa ggttctgaca aacacctggc atgacagaat  
 1560  
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 1620  
 taatatacat aaatcggtac gccatgggtt gaagaccacc ttctagttca ggactcctgt  
 1680  
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 1740  
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 1800  
 cttctttggt atggaatttt tcccttcagt gactgagctg tcctcgatag gccatgcaag  
 1860  
 ggcttctga gagttcagga aagttctctt gtgcaacagc aagtagctaa gcctatagca  
 1920  
 tgggtgtctt taggaccaa tcgatgttac ctgtcaagta aataaataat aaaacacca  
 1980  
 aaaaaaaaaa aaaaaaaaaa  
 1999

&lt;210&gt; 5748

&lt;211&gt; 492

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5748

Xaa	Met	Ala	Gln	Ser	Gly	Gly	Glu	Ala	Arg	Pro	Gly	Pro	Lys	Thr	Ala
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Val	Gln	Ile	Arg	Val	Ala	Ile	Gln	Glu	Ala	Glu	Asp	Val	Asp	Glu	Leu
		20					25					30			
Glu	Asp	Glu	Glu	Glu	Gly	Ala	Glu	Thr	Arg	Gly	Ala	Gly	Asp	Pro	Ala
	35					40					45				
Arg	Tyr	Leu	Ser	Pro	Gly	Trp	Gly	Ser	Ala	Ser	Glu	Glu	Glu	Pro	Ser
	50				55						60				
Arg	Gly	His	Ser	Gly	Thr	Thr	Ala	Ser	Gly	Gly	Glu	Asn	Glu	Arg	Glu
65				70					75					80	
Asp	Leu	Glu	Gln	Glu	Trp	Lys	Pro	Pro	Asp	Glu	Glu	Leu	Ile	Lys	Lys
			85						90				95		
Leu	Val	Asp	Gln	Ile	Glu	Phe	Tyr	Phe	Ser	Asp	Glu	Asn	Leu	Glu	Lys
		100						105				110			
Asp	Ala	Phe	Leu	Leu	Lys	His	Val	Arg	Arg	Asn	Lys	Leu	Gly	Tyr	Val
	115					120						125			
Ser	Val	Lys	Leu	Leu	Thr	Ser	Phe	Lys	Lys	Val	Lys	His	Leu	Thr	Arg
	130					135					140				
Asp	Trp	Arg	Thr	Thr	Ala	His	Ala	Leu	Lys	Tyr	Ser	Val	Val	Leu	Glu
145				150					155					160	
Leu	Asn	Glu	Asp	His	Arg	Lys	Val	Arg	Arg	Thr	Thr	Pro	Val	Pro	Leu

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<210> 5749
<211> 2849
<212> DNA
<213> Homo sapiens
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120
gaaataaaaac ccatttcaaa agttattgga aagaaagtaa ggtatggctc ttatgggtta
180
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actagtggta gtcagtttct gctttttact ccctctgaat tattaattgt ttgccagggt  
240  
cactgggtggg aggctgagcc ggtggaaaag acaccgggaa gagactcaga ggcgaccata  
300  
atgtcggttac gtgtacacac tctgcccacc ctgcttggag ccgtcgtcag accgggctgc  
360  
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480  
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540  
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600  
cgtcataaca acatcaccag catttccacg ggcagttttt ccacaactcc aaatttgaag  
660  
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720  
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780  
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840  
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1080  
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1200  
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1260  
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1440  
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 2400  
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 2580  
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 2640  
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 2700  
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 2760  
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 2820  
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 2849

&lt;210&gt; 5750

&lt;211&gt; 522

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5750

Met	Ser	Leu	Arg	Val	His	Thr	Leu	Pro	Thr	Leu	Leu	Gly	Ala	Val	Val
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Arg	Pro	Gly	Cys	Arg	Glu	Leu	Leu	Cys	Leu	Leu	Met	Ile	Thr	Val	Thr
		20						25					30		
Val	Gly	Pro	Gly	Ala	Ser	Gly	Val	Cys	Pro	Thr	Ala	Cys	Ile	Cys	Ala
		35					40					45			
Thr	Asp	Ile	Val	Ser	Cys	Thr	Asn	Lys	Asn	Leu	Ser	Lys	Val	Pro	Gly
	50					55				60					
Asn	Leu	Phe	Arg	Leu	Ile	Lys	Arg	Leu	Asp	Leu	Ser	Tyr	Asn	Arg	Ile
65				70					75					80	
Gly	Leu	Leu	Asp	Ser	Glu	Trp	Ile	Pro	Val	Ser	Phe	Ala	Lys	Leu	Asn



				85					90					95		
Thr	Leu	Ile	Leu	Arg	His	Asn	Asn	Ile	Thr	Ser	Ile	Ser	Thr	Gly	Ser	
			100					105					110			
Phe	Ser	Thr	Thr	Pro	Asn	Leu	Lys	Cys	Leu	Asp	Leu	Ser	Ser	Asn	Lys	
		115					120					125				
Leu	Lys	Thr	Val	Lys	Asn	Ala	Val	Phe	Gln	Glu	Leu	Lys	Val	Leu	Glu	
	130					135					140					
Val	Leu	Leu	Leu	Tyr	Asn	Asn	His	Ile	Ser	Tyr	Leu	Asp	Pro	Ser	Ala	
145					150					155					160	
Phe	Gly	Gly	Leu	Ser	Gln	Leu	Gln	Lys	Leu	Tyr	Leu	Ser	Gly	Asn	Phe	
				165					170					175		
Leu	Thr	Gln	Phe	Pro	Met	Asp	Leu	Tyr	Val	Gly	Arg	Phe	Lys	Leu	Ala	
			180					185					190			
Glu	Leu	Met	Phe	Leu	Asp	Val	Ser	Tyr	Asn	Arg	Ile	Pro	Ser	Met	Pro	
		195					200					205				
Met	His	His	Ile	Asn	Leu	Val	Pro	Gly	Lys	Gln	Leu	Arg	Gly	Ile	Tyr	
	210					215					220					
Leu	His	Gly	Asn	Pro	Phe	Val	Cys	Asp	Cys	Ser	Leu	Tyr	Ser	Leu	Leu	
225					230					235					240	
Val	Phe	Trp	Tyr	Arg	Arg	His	Phe	Ser	Ser	Val	Met	Asp	Phe	Lys	Asn	
				245					250					255		
Asp	Tyr	Thr	Cys	Arg	Leu	Trp	Ser	Asp	Ser	Arg	His	Ser	Arg	Gln	Val	
			260					265						270		
Leu	Leu	Leu	Gln	Asp	Ser	Phe	Met	Asn-Cys	Ser	Asp	Ser	Ile	Ile	Asn		
		275					280				285					
Gly	Ser	Phe	Arg	Ala	Leu	Gly	Phe	Ile	His	Glu	Ala	Gln	Val	Gly	Glu	
	290					295					300					
Arg	Leu	Met	Val	His	Cys	Asp	Ser	Lys	Thr	Gly	Asn	Ala	Asn	Thr	Asp	
305					310					315					320	
Phe	Ile	Trp	Val	Gly	Pro	Asp	Asn	Arg	Leu	Leu	Glu	Pro	Asp	Lys	Glu	
				325					330					335		
Met	Glu	Asn	Phe	Tyr	Val	Phe	His	Asn	Gly	Ser	Leu	Val	Ile	Glu	Ser	
			340					345					350			
Pro	Arg	Phe	Glu	Asp	Ala	Gly	Val	Tyr	Ser	Cys	Ile	Ala	Met	Asn	Lys	
		355					360					365				
Gln	Arg	Leu	Leu	Asn	Glu	Thr	Val	Asp	Val	Thr	Ile	Asn	Val	Ser	Asn	
	370					375					380					
Phe	Thr	Val	Ser	Arg	Ser	His	Ala	His	Glu	Ala	Phe	Asn	Thr	Ala	Phe	
385					390					395					400	
Thr	Thr	Leu	Ala	Ala	Cys	Val	Ala	Ser	Ile	Val	Leu	Val	Leu	Leu	Tyr	
				405					410					415		
Leu	Tyr	Leu	Thr	Pro	Cys	Pro	Cys	Lys	Cys	Lys	Thr	Lys	Arg	Gln	Lys	
		420				</										

515

520

&lt;210&gt; 5751

&lt;211&gt; 926

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5751

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 120  
 gtgagggcta gctgagggct ctctgcctt tcgtgcattc gctggtcact aatcgggcac  
 180  
 cttgtgggtg ctgtgctccg catgggggac ccagtggatga cagagacgcc caccctcctg  
 240  
 gggctcccag agcagaggcg cgcagcagtt agacacgtga acaagggcgc aggcattcctg  
 300  
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 360  
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 420  
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 480  
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 540  
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 600  
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&lt;210&gt; 5752

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5752

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&lt;210&gt; 5753

&lt;211&gt; 5668

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5753

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&lt;210&gt; 5754

&lt;211&gt; 221

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5754

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55	Ser	Ser	Gln
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&lt;211&gt; 1513

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5755

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&lt;210&gt; 5756

&lt;211&gt; 415

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5756

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<210> 5758

<211> 440

<212> PRT

<213> Homo sapiens

<400> 5758

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Phe	Glu	Leu	Tyr	Tyr	His	Thr	Thr	Gln	Asp	Leu	Gln	Leu	Phe	Arg	Glu
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<212> DNA
<213> Homo sapiens
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&lt;210&gt; 5760

&lt;211&gt; 273

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5760

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			20					25					30		
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			35				40					45			
Ile	Glu	Leu	Cys	Ser	Gly	Leu	Ser	Glu	Gly	Gly	Thr	Thr	Pro	Ser	Met
			50			55					60				
Gly	Val	Leu	Gln	Val	Val	Lys	Gln	Ser	Val	Gln	Ile	Pro	Val	Phe	Val
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Glu	Val	Met	Lys	Ala	Asp	Ile	Arg	Leu	Ala	Lys	Leu	Tyr	Gly	Ala	Asp
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Gly	Leu	Val	Phe	Gly	Ala	Leu	Thr	Glu	Asp	Gly	His	Ile	Asp	Lys	Glu
			115				120					125			
Leu	Cys	Met	Ser	Leu	Met	Ala	Ile	Cys	Arg	Pro	Leu	Pro	Val	Thr	Phe
			130			135					140				
His	Arg	Ala	Phe	Asp	Met	Val	His	Asp	Pro	Met	Ala	Ala	Leu	Glu	Thr
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&lt;211&gt; 333

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5762

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			20					25					30		
Glu	Asn	Ala	Gln	Pro	Thr	Glu	Gly	Glu	Arg	Glu	Ile	Trp	Asn	Gln	Ile
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Ser	Ala	Val	Leu	Gln	Asp	Ser	Glu	Ser	Ile	Leu	Ala	Asp	Leu	Gln	Ala
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		100					105					110			
Leu	Gln	Ser	Leu	Leu	Glu	Ser	Leu	Thr	Cys	Pro	Pro	Tyr	Thr	Pro	Thr
		115				120						125			
Gln	His	Leu	Glu	Arg	Glu	Gln	Ala	Leu	Ala	Lys	Glu	Phe	Ala	Glu	Ile
	130				135				140						
Leu	His	Phe	Thr	Leu	Arg	Phe	Asp	Glu	Leu	Lys	Met	Arg	Asn	Pro	Ala
145				150					155					160	
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<210> 5763
<211> 3840
<212> DNA
<213> Homo sapiens
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&lt;210&gt; 5764

&lt;211&gt; 466

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5764

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Leu	Tyr	Phe	Cys	Arg	Tyr	Cys	Ser	Glu	Leu	Arg	Ser	Leu	Glu	Cys	Val
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&lt;210&gt; 5765

&lt;211&gt; 3220

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5765

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<212> PRT  
<213> Homo sapiens

<400> 5766  
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Cys Gly Cys Val Thr Met	Leu Lys Ser Pro Asn	Arg Thr Thr Ala Val		
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&lt;210&gt; 5767

&lt;211&gt; 1910

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5767

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<210> 5768

<211> 360

<212> PRT

<213> Homo sapiens

<400> 5768

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Thr	Cys	Glu	Asn	Trp	Arg	Glu	Ile	His	His	Leu	Val	Phe	His	Val	Ala
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Ile	Val	Trp	Ala	Thr	Leu	Tyr	Arg	Cys	Ala	Leu	Asp	Ile	Met	Ile	Trp
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Leu Lys Gly Lys Met Lys Val Ser Tyr Arg Gly His Phe Leu His Asn			
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Ile Tyr Pro Cys Ala Phe Ile Asp Ser Pro Glu Phe Arg Ser Thr Gln			
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Met His Lys Gly Glu Lys Phe Gln Val Thr Ile Ile Ala Asp Asp Asn			
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Lys Ala Lys Lys Leu Glu His Gln Leu Ser Leu Cys Thr Gln Ile Ser			
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Gly Leu His Gln Phe Leu Arg Ser Thr Ser Ser Met Ser Ser Leu His			
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Val Ser Ser Pro His Gln Arg Ala Ser Ala Lys Met Lys Pro Ile Glu			
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Glu Gly Ala Glu Asp Asp Asp Asp Val Phe Glu Pro Ala Ser Pro Asn			
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&lt;210&gt; 5769

&lt;211&gt; 427

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5769

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&lt;210&gt; 5770

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<400> 5770  
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 <213> Homo sapiens

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<210> 5772

<211> 642

<212> PRT

<213> Homo sapiens

<400> 5772

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Leu	Asp	Tyr	Gly	Phe	Met	Lys	Glu	Val	Thr	Phe	His	Cys	His	Gly	Leu
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Asp	Ala	Glu	Ile	Pro	Leu	Cys	Lys	Pro	Val	Asn	Cys	Gly	Pro	Pro	Glu
				85					90					95	
Asp	Leu	Ala	His	Gly	Phe	Pro	Asn	Gly	Phe	Ser	Phe	Ile	His	Gly	Gly
			100					105					110		
His	Ile	Gln	Tyr	Gln	Cys	Phe	Pro	Gly	Tyr	Lys	Leu	His	Gly	Asn	Ser
		115					120					125			
Ser	Arg	Arg	Cys	Leu	Ser	Asn	Gly	Ser	Trp	Ser	Gly	Ser	Ser	Pro	Ser
	130					135					140				
Cys	Leu	Pro	Cys	Arg	Cys	Ser	Thr	Pro	Val	Ile	Glu	Tyr	Gly	Thr	Val
145					150					155					160
Asn	Gly	Thr	Asp	Phe	Asp	Cys	Gly	Lys	Ala	Ala	Arg	Ile	Gln	Cys	Phe
				165					170					175	
Lys	Gly	Phe	Lys	Leu	Leu	Gly	Leu	Ser	Glu	Ile	Thr	Cys	Glu	Ala	Asp
			180					185					190		
Gly	Gln	Trp	Ser	Ser	Gly	Phe	Pro	His	Cys	Glu	His	Thr	Ser	Cys	Gly
		195					200						205		
Ser	Leu	Pro	Met	Ile	Pro	Asn	Ala	Phe	Ile	Ser	Glu	Thr	Ser	Ser	Trp
	210					215					220				
Lys	Glu	Asn	Val	Ile	Thr	Tyr	Ser	Cys	Arg	Ser	Gly	Tyr	Val	Ile	Gln
225					230					235					240
Gly	Ser	Ser	Asp	Leu	Ile	Cys	Thr	Glu	Lys	Gly	Val	Trp	Asn	Gln	Pro
			245						250					255	
Tyr	Pro	Val	Cys	Glu	Pro	Leu	Ser	Cys	Gly	Ser	Pro	Pro	Ser	Val	Ala
			260					265					270		
Asn	Ala	Val	Ala	Thr	Gly	Glu	Ala	His	Thr	Tyr	Glu	Ser	Glu	Val	Lys
		275					280					285			
Leu	Arg	Cys	Leu	Glu	Gly	Tyr	Thr	Met	Asp	Thr	Asp	Thr	Asp	Thr	Ile
	290					295					300				
Thr	Cys	Gln	Lys	Asp	Gly	Arg	Trp	Phe	Pro	Glu	Arg	Ile	Ser	Cys	Ser
305					310					315					320
Pro	Lys	Lys	Cys	Pro	Leu	Pro	Glu	Asn	Ile	Thr	His	Ile	Leu	Val	His
			325						330					335	
Gly	Asp	Asp	Phe	Ser	Val	Asn	Arg	Gln	Val	Ser	Val	Ser	Cys	Ala	Glu
			340					345					350		
Gly	Tyr	Thr	Phe	Glu	Gly	Val	Asn	Ile	Ser	Val	Cys	Gln	Leu	Asp	Gly

355	360	365
Thr Trp Glu Pro Pro Phe Ser Asp Glu Ser Cys Ser Pro Val Ser Cys		
370	375	380
Gly Lys Pro Glu Ser Pro Glu His Gly Phe Val Val Gly Ser Lys Tyr		
385	390	395
Thr Phe Glu Ser Thr Ile Ile Tyr Gln Cys Glu Pro Gly Tyr Glu Leu		
405	410	415
Glu Gly Asn Arg Glu Arg Val Cys Gln Glu Asn Arg Gln Trp Ser Gly		
420	425	430
Gly Val Ala Ile Cys Lys Glu Thr Arg Cys Glu Thr Pro Leu Glu Phe		
435	440	445
Leu Asn Gly Lys Ala Asp Ile Glu Asn Arg Thr Thr Gly Pro Asn Val		
450	455	460
Val Tyr Ser Cys Asn Arg Gly Tyr Ser Leu Glu Gly Pro Ser Glu Ala		
465	470	475
His Cys Thr Glu Asn Gly Thr Trp Ser His Pro Val Pro Leu Cys Lys		
485	490	495
Pro Asn Pro Cys Pro Val Pro Phe Val Ile Pro Glu Asn Ala Leu Leu		
500	505	510
Ser Glu Lys Glu Phe Tyr Val Asp Gln Asn Val Ser Ile Lys Cys Arg		
515	520	525
Glu Gly Phe Leu Leu Gln Gly His Gly Ile Ile Thr Cys Asn Pro Asp		
530	535	540
Glu Thr Trp Thr Gln Thr Ser Ala Lys Cys Glu Lys Ile Ser Cys Gly		
545	550	555
Pro Pro Ala His Val Glu Asn Ala Ile Ala Arg Gly Val His Tyr Gln		
565	570	575
Tyr Gly Asp Met Ile Thr Tyr Ser Cys Tyr Ser Gly Tyr Met Leu Glu		
580	585	590
Gly Phe Leu Arg Ser Val Cys Leu Glu Asn Gly Thr Trp Thr Ser Pro		
595	600	605
Pro Ile Cys Arg Ala Val Cys Arg Phe Pro Cys Gln Asn Gly Gly His		
610	615	620
Leu Pro Thr Pro Lys Cys Leu Phe Leu Ser Arg Gly Leu Asp Gly Ala		
625	630	635
Pro Leu		640

&lt;210&gt; 5773

&lt;211&gt; 579

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5773

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 60  
 cggagccgga gctcgtcccgt ctccaagcac accaagagca gcaagcaca caagaagcgc  
 120  
 agcccggtccc ggtecgcatc ccgggacaag gagcgcgtgc ggaagcgttc caaatctcgg  
 180  
 gaaagtaaac ggaaccggcg gcgggagtcg cggtcccgtt cgcgctccac caacacggcc  
 240  
 gtgtcccggc gcgagcggga ccgggagcgc cctcgtcccc gcccgaccgc atcgacatct  
 300

tcgggcgac ggtgagcaag cgcagcagcc tggacgagaa gcagaagcga gaggaggagg  
 360  
 agaagaaagc ggagttcgag cggcagcgaa aaattcgaca gcaagaaata gaagaaaaac  
 420  
 tcatcgagga agaaacagca cgaagagtag aagaattggt agcaanaaag ggtggaggaa  
 480  
 gaactggaga aaaggaagga tgaaattgaa cgagaagttc tccgaagggt ggaggaagcc  
 540  
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 579

<210> 5774

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5774

Xaa	Arg	Val	Arg	Gly	Leu	Arg	Arg	Ala	Val	Arg	Ala	Ser	Pro	Gly	Arg
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Met	Gly	Arg	Ser	Arg	Ser	Arg	Ser	Ser	Ser	Arg	Ser	Lys	His	Thr	Lys
			20					25					30		
Ser	Ser	Lys	His	Asn	Lys	Lys	Arg	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Arg
		35					40					45			
Asp	Lys	Glu	Arg	Val	Arg	Lys	Arg	Ser	Lys	Ser	Arg	Glu	Ser	Lys	Arg
	50					55					60				
Asn	Arg	Arg	Arg	Glu	Ser	Arg	Ser	Arg	Ser	Arg	Ser	Thr	Asn	Thr	Ala
65					70				75						80
Val	Ser	Arg	Arg	Glu	Arg	Asp	Arg	Glu	Arg	Pro	Arg	Pro	Arg	Pro	Thr
				85					90					95	
Ala	Ser	Thr	Ser	Ser	Gly	Ala	Arg								
				100											

<210> 5775

<211> 1441

<212> DNA

<213> Homo sapiens

<400> 5775

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 120  
 caccggggac acctggaacc cagcaccacg agcctcagct tcacctccat gggcatcaac  
 180  
 atgcctaagg tgctctccca gccgtccgac ctggatctcc aagacgtaga ggaagtggag  
 240  
 atcggcagag acaccttctg gcccgactcc gagcccaagc cggagcaggc tccacgctct  
 300  
 cctggctctc agggccctga cgagggggcg ggcggggcg cgcgcacctc cgtgaggagc  
 360  
 cttccccgca gggcccgggtg cagcgcgggc ttcgggcctg aatccagcgc ggagcggccg  
 420  
 gcggggccagc cgcctggggc cgtcccttgc gccagccgc ggggcgcctg gcgcgtgacg  
 480

ctctgtgcagc aagcagcggc cgggcccagag ggtgcgcccg agcgggctgc cgagctggga  
 540  
 gtcaacttcg gtcggagccg gcagggcagc gcgcggggga ccaagccgca caggtgcgag  
 600  
 gcctgcggca agagtttcaa gtataactcg ctgctcctga agcaccagcg catccacacg  
 660  
 ggcgagaagc cctacgcctg ccacgagtgc ggcaagtgtt tcgccgcagc ttcgcgcttc  
 720  
 atccagcacc agcgcattca cagcggcgag aagccctacg cctgccccga gtgcagcaag  
 780  
 accttcacgc gcagctccaa cctcatcaag caccaggtca tccacagcgg cgagcggccc  
 840  
 ttcgcctgcg gcgactgcgg caaactgttc cgccgcagct tcgcgctcct ggagcacgcg  
 900  
 cgctgcacac gcggcgagaa gccctacgag tgctccgact gcggcaagtg cttccgcggc  
 960  
 cgctcgcact tcttccggca caaccgcaca cacacgggag agaagcccta ccactgcctc  
 1020  
 gactgcggca agagcttcag ccacagctcg cacctcatca agcaccagcg caccacacgt  
 1080  
 ggcggtgcggc cctacgcctg cccgttgtgt ggcaagagct tcagccggcg ctccaacctg  
 1140  
 caccggcacg agaagatcca caccaccggg cccaaggccc tggccatgct gatgctgggg  
 1200  
 gcggcgggcg cgggggctct ggccacaccc ccaccgctc ccacctagga ggccaggaaa  
 1260  
 gggggagcgg ggcgcccagg gccactggaa cagccccact ggagtcaagg ctccgaggga  
 1320  
 ggagagaggg gctcgggaag ggagctgggg cggtgagggc atgggggtgag gcatggcgat  
 1380  
 gggggagggc gagggcgaga aagggcaggc actctgcgaa ttaaaggcct tggacttgaa  
 1440  
 a  
 1441

&lt;210&gt; 5776

&lt;211&gt; 359

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5776

Met	Gly	Ile	Asn	Met	Pro	Lys	Val	Leu	Ser	Gln	Pro	Ser	Asp	Leu	Asp
1				5				10						15	
Leu	Gln	Asp	Val	Glu	Glu	Val	Glu	Ile	Gly	Arg	Asp	Thr	Phe	Trp	Pro
			20					25						30	
Asp	Ser	Glu	Pro	Lys	Pro	Glu	Gln	Ala	Pro	Arg	Ser	Pro	Gly	Ser	Gln
			35					40						45	
Ala	Pro	Asp	Glu	Gly	Ala	Gly	Gly	Ala	Leu	Arg	Thr	Ser	Val	Arg	Ser
			50					55						60	
Leu	Pro	Arg	Arg	Ala	Arg	Cys	Ser	Ala	Gly	Phe	Gly	Pro	Glu	Ser	Ser
65						70					75			80	
Ala	Glu	Arg	Pro	Ala	Gly	Gln	Pro	Pro	Gly	Ala	Val	Pro	Cys	Ala	Gln
						85					90			95	
Pro	Arg	Gly	Ala	Trp	Arg	Val	Thr	Leu	Val	Gln	Gln	Ala	Ala	Ala	Gly

100	105	110
Pro Glu Gly Ala Pro Glu Arg Ala Ala Glu Leu Gly Val Asn Phe Gly		
115	120	125
Arg Ser Arg Gln Gly Ser Ala Arg Gly Thr Lys Pro His Arg Cys Glu		
130	135	140
Ala Cys Gly Lys Ser Phe Lys Tyr Asn Ser Leu Leu Leu Lys His Gln		
145	150	155
Arg Ile His Thr Gly Glu Lys Pro Tyr Ala Cys His Glu Cys Gly Lys		
165	170	175
Cys Phe Ala Ala Ala Ser Arg Phe Ile Gln His Gln Arg Ile His Ser		
180	185	190
Gly Glu Lys Pro Tyr Ala Cys Pro Glu Cys Ser Lys Thr Phe Thr Arg		
195	200	205
Ser Ser Asn Leu Ile Lys His Gln Val Ile His Ser Gly Glu Arg Pro		
210	215	220
Phe Ala Cys Gly Asp Cys Gly Lys Leu Phe Arg Arg Ser Phe Ala Leu		
225	230	235
Leu Glu His Ala Arg Val His Ser Gly Glu Lys Pro Tyr Glu Cys Ser		
245	250	255
Asp Cys Gly Lys Cys Phe Arg Gly Arg Ser His Phe Phe Arg His Asn		
260	265	270
Arg Thr His Thr Gly Glu Lys Pro Tyr His Cys Leu Asp Cys Gly Lys		
275	280	285
Ser Phe Ser His Ser Ser His Leu Ile Lys His Gln Arg Thr His Arg		
290	295	300
Gly Val Arg Pro Tyr Ala Cys Pro Leu Cys Gly Lys Ser Phe Ser Arg		
305	310	315
Arg Ser Asn Leu His Arg His Glu Lys Ile His Thr Thr Gly Pro Lys		
325	330	335
Ala Leu Ala Met Leu Met Leu Gly Ala Ala Ala Ala Gly Ala Leu Ala		
340	345	350
Thr Pro Pro Pro Ala Pro Thr		
355		

&lt;210&gt; 5777

&lt;211&gt; 1431

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5777

ggaaggctcg cctgggagct catacctggc tggggccgag gattggctgt tccggggcta  
60

gggagcgctt tctcccggga accgcggctg tgacccaagt ggcccggacc agtttggggc  
120

tgcgtgcggc ctgcctcaag caaccaggta cgtaggctcg cgcccagct cggcgctgcg  
180

gtgggagccg gagggcgaca gtcagagccg ggggtgccagc gggacgagac cgccagatcc  
240

acttaggacc ccgtcgttct gcgaagcggc cacgtctgag tcccggggcc tcctcgtgct  
300

gcagatgtcg ccttaggacc tcggccagga taccctctgc catgctcttg tgctgcccgt  
360

gatcaccgac tggcccttgt aagcaccttc gcagcaggaa gccagagct gcgcctgccc  
420

tttctgaagg ctgtggaaga ggttggagtg ggcgcattctt agcttgcccc atccccattt  
 480  
 gaggtctgtc ggagctgccc ttcagtgtga gcatccacaa tgggtacccc agcctcgggtg  
 540  
 gtcagtgagc caccoccttg gcaggccccg attgaggccc ggggccgcaa gcaggcctcg  
 600  
 gccaacatct tccaggacgc cgagctgctg cagatccaag ccctgtttca acgcagcggg  
 660  
 gaccagctgg ccgaggaacg ggcacagatc atctgggaat gtgcagggga ccaccgtgtg  
 720  
 gctgaggccc tcaagaggct gcgcaggaag agggccccc aa ggcagaaacc ccctgggcca  
 780  
 ctgcctacac cactgcagcc gcctcagaat cctggagccc cactctgcac tggccaaccc  
 840  
 acagagtgcc acagagacag cctccagtga gcagtatctg cactctagga agaaaagtgc  
 900  
 caggatccgc cggaactgga ggaagtcagg cccacaaagc tacctccacc agatcagaca  
 960  
 ctgatccagg gaaagagcca ggaatggcag tgtcttccct cttgccaaaa ggcctgggga  
 1020  
 ggtgaaggaa gagagacttt aggcaagcag cccaaagggg taaatgaaag caagaggctg  
 1080  
 ctgccactga cctgctccat tcagaacaag actggatgct tctgttgagc tctccattat  
 1140  
 gtgggaccca ttcctcacca aaatgaggag agacagtgc tggtcctgcc acagtccttc  
 1200  
 ccagtctaac actattcctg ggctgcatga tattccctcg ggagcaaagt gacaggcact  
 1260  
 tagatgcagc atttcaccac tcatgctact aatcatctac ctgctactac tgtaaaccat  
 1320  
 ggttccagca gcctgttcca cccccccaca ccatcaggat agcacaggga aactgtagtt  
 1380  
 taagtggcaa ataaaaacat ttgcatcaaa aaaaaaaaaa aaaaaaaaaa a  
 1431

&lt;210&gt; 5778

&lt;211&gt; 164

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5778

Met	Leu	Thr	Leu	Lys	Gly	Ser	Ser	Asp	Arg	Pro	Gln	Met	Gly	Met	Gly
1				5					10					15	
Gln	Ala	Lys	Met	Arg	Pro	Leu	Gln	Pro	Leu	Pro	Gln	Pro	Ser	Glu	Arg
			20					25					30		
Ala	Gly	Ala	Ala	Leu	Gly	Phe	Leu	Leu	Arg	Arg	Cys	Leu	Gln	Gly	Pro
		35					40					45			
Val	Gly	Asp	His	Gly	Gln	His	Lys	Ser	Met	Ala	Glu	Gly	Ile	Leu	Ala
	50					55					60				
Glu	Val	Leu	Arg	Arg	His	Leu	Gln	His	Glu	Glu	Ala	Pro	Gly	Leu	Arg
65					70					75				80	
Arg	Gly	Arg	Phe	Ala	Glu	Arg	Arg	Gly	Pro	Lys	Trp	Ile	Trp	Arg	Ser
			85						90					95	
Arg	Pro	Ala	Gly	Thr	Pro	Ala	Leu	Thr	Val	Ala	Leu	Arg	Leu	Pro	Pro

			100					105					110				
Gln	Arg	Arg	Ala	Gly	Pro	Pro	Thr	Tyr	Val	Pro	Gly	Cys	Leu	Arg	Gln		
		115					120					125					
Ala	Ala	Arg	Ser	Pro	Lys	Leu	Val	Arg	Ala	Thr	Trp	Val	Thr	Ala	Ala		
	130					135					140						
Val	Pro	Gly	Arg	Lys	Arg	Ser	Leu	Ala	Pro	Glu	Gln	Pro	Ile	Leu	Gly		
145					150					155					160		
Pro	Ser	Gln	Val														

&lt;210&gt; 5779

&lt;211&gt; 371

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5779

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60  
cgggagagag ggggtgatttc agccttgtct ggcattccctt gtgtctgcnt gaggggtgtgt  
120  
gcacacggga atgtgtgcgg gtgtgtgtgc gtgcatgcag ctgtgtgtgg atgtgcantc  
180  
gtgtgtgggt gtgtaggtgt gtgtgggtgt gtgcaccagt gcaggtgtgc atgggtgtgt  
240  
acaggtgggt gtgtgtatgt gtgtgggggt gtgcccattc gtgcaggtgt gtgggtgtgc  
300  
agggtcncat gcctgtgtgt ggggtgtgncc ccgtgtgtac ccctgtggag gtgtgtgggt  
360  
gtgtgcagtg t  
371

&lt;210&gt; 5780

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5780

Leu	Leu	Arg	Arg	Val	Glu	Gly	Arg	Lys	Gly	Arg	Thr	His	Asp	Leu	Pro		
1				5					10					15			
Gln	Arg	His	Gly	Arg	Glu	Arg	Gly	Val	Ile	Ser	Ala	Leu	Ser	Gly	Ile		
		20					25						30				
Pro	Cys	Val	Cys	Xaa	Arg	Val	Cys	Ala	His	Gly	Asn	Val	Cys	Gly	Cys		
	35					40					45						
Val	Cys	Val	His	Ala	Ala	Val	Cys	Gly	Cys	Ala	Xaa	Val	Cys	Gly	Cys		
	50				55					60							
Val	Gly	Val	Cys	Gly	Cys	Val	His	Gln	Cys	Arg	Cys	Ala	Trp	Val	Cys		
65				70				75					80				
Thr	Gly	Gly	Cys	Val	Tyr	Val	Cys	Gly	Gly	Val	Pro	Ile	Cys	Ala	Gly		
			85			90				95							
Val	Trp	Val	Cys	Arg	Val	Xaa	Cys	Leu	Cys	Val	Gly	Val	Xaa	Pro	Cys		
		100				105					110						
Val	Pro	Leu	Trp	Arg	Cys	Val	Gly	Val	Cys	Ser							
	115					120											



<210> 5781  
 <211> 845  
 <212> DNA  
 <213> Homo sapiens

<400> 5781  
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 120  
 ccaccaggtg aggatggcac tgcaacatct tccactgagg ctccagctgc cctctcaggt  
 180  
 acatcagggc ctgganctgc ctctcttcca ggagggccag gactcggccc cctgccagcc  
 240  
 cccgaagcat tgcagccagg agtgcagcgt gggggccctg caggccatgg ccaggcccca  
 300  
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 360  
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 660  
 ctctgggctc cgtgggacag gcctctccga acagccacat ccagggtggc tgctgcagca  
 720  
 gaggtggag tggctgctat accactgttc acctgtggga tgaataaaca gtggagaatg  
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 840  
 ctctg  
 845

<210> 5782  
 <211> 147  
 <212> PRT  
 <213> Homo sapiens

<400> 5782  
 Gly Val Pro Cys Pro Lys Ile Glu Gly Ala Val Gly Leu Gly Ser Gly  
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 Ser Arg Pro Arg Gly Ala Gly Val Arg Cys His Phe Cys Gly Val Asn  
 20 25 30  
 Ala Pro Thr Leu Ala Asp Phe Lys Pro Pro Gly Glu Asp Gly Thr Ala  
 35 40 45  
 Thr Ser Ser Thr Glu Ala Pro Ala Ala Leu Ser Gly Thr Ser Gly Pro  
 50 55 60  
 Gly Xaa Ser Ser Pro Pro Gly Gly Pro Gly Leu Gly Pro Leu Pro Ala  
 65 70 75 80  
 Pro Glu Ala Leu Gln Pro Gly Val Gln Arg Gly Gly Pro Ala Gly His

	85		90		95										
Gly	Gln	Ala	Pro	Ala	Pro	Pro	Ala	Pro	Gly	Gln	Ala	Gly	Ser	His	Arg
		100						105					110		
Pro	Gly	Ala	Ala	Pro	Ser	Pro	Arg	Cys	Ser	Ser	Gly	Asn	His	Arg	Ser
		115					120					125			
Ser	Leu	Ala	Val	Ala	Trp	Arg	His	Gly	Thr	Trp	Ile	Gly	Gln	Pro	Pro
	130					135					140				
Pro	Cys	Pro													
145															

&lt;210&gt; 5783

&lt;211&gt; 1839

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5783

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 60  
 ctggtgatcc agcagcgcgg ggtgcgaatc tacgatggcg aggagaagat aaaatttgat  
 120  
 gctgggactc tccttcttag tacacaccga ctgatttggg gagatcagaa aaatcatgag  
 180  
 tggttgcattg ccattctcct ttcccaaatt gtgttcattg aagaacaggc ggctggaatt  
 240  
 gggaagagtg ccaaaatagt ggttcattct caccagctc ctctaacaaga agaacctggc  
 300  
 ccattccaga gtagtaagaa ctctacatc aaactctcct tcaaagaaca tggccagatt  
 360  
 gagttttaca ggcgtttatc agaggaaatg acacaaagaa gatgggagaa tatgccagtt  
 420  
 tcccagtcac tacaacaaa tagaggaccc cagccaggaa gaataagggc ttaggaatt  
 480  
 gtaggtattg aaaggaaact ggaagaaaaa agaaaagaaa ctgacaaaaa catttctgag  
 540  
 gcctttgaag acctcagcaa actaatgatc aaggctaagg aaatggtgga attatcaaaa  
 600  
 tcaattgcta ataaaattaa agacaaacaa ggtgacatca cagaagatga gaccatcagg  
 660  
 tttaaactcct acttgctgag catgggaata gctaaccag ttaccagaga aacctacggc  
 720  
 tcaggcacac agtaccacat gcagctggcc aaacaactgg ctggaatatt gcaggtgcct  
 780  
 ttagaggaac gagggggaat aatgtcactc acggaggtgt actgcttagt aaaccgagct  
 840  
 cgaggaatgg aattgctctc accagaagat ttagtgaatg cgtgcaagat gctggaagca  
 900  
 ctgaaattac ctctcaggct ccgtgtgttt gacagtggcg tcatggtaat tgagcttcag  
 960  
 tctcacaagg aagaggaaat ggtggcctcg gccctggaga cagtttcaga aaagggatcc  
 1020  
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 1080  
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&lt;210&gt; 5784

&lt;211&gt; 386

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5784

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Lys	Ile	Val	Val	His	Leu	His	Pro	Ala	Pro	Pro	Asn	Lys	Glu	Pro	Gly
			85						90					95	
Pro	Phe	Gln	Ser	Ser	Lys	Asn	Ser	Tyr	Ile	Lys	Leu	Ser	Phe	Lys	Glu
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His	Gly	Gln	Ile	Glu	Phe	Tyr	Arg	Arg	Leu	Ser	Glu	Glu	Met	Thr	Gln
		115					120					125			
Arg	Arg	Trp	Glu	Asn	Met	Pro	Val	Ser	Gln	Ser	Leu	Gln	Thr	Asn	Arg
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Arg	Lys	Leu	Glu	Glu	Lys	Arg	Lys	Glu	Thr	Asp	Lys	Asn	Ile	Ser	Glu
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<210> 5786

<211> 159

<212> PRT

<213> Homo sapiens

<400> 5786

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Ser	Leu	Gln	Gly	Thr	Gln	Glu	Thr	Tyr	Thr	Leu	Ala	His	Lys	Glu	Asn
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<211> 1683

<212> DNA

<213> Homo sapiens

<400> 5787

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&lt;210&gt; 5788

&lt;211&gt; 417

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5788

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			20					25					30				
Ser	Cys	Glu	Tyr	Glu	Thr	Arg	Leu	Pro	Gly	Asn	His	Ser	Thr	Ser	Gln		
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Lys	Cys	Ser	Asp	Cys	Gly	Lys	Thr	Phe	Lys	Gln	Ser	Ser	Asn	Leu	Gly		
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Phe	Ser	Gln	Ser	Ser	Tyr	Leu	Ser	Gln	His	Arg	Arg	Ile	His	Ser	Gly		
	370					375					380						
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<213> Homo sapiens

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<213> Homo sapiens

&lt;400&gt; 5790

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&lt;211&gt; 3285

<212> DNA

<213> Homo sapiens

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<211> 479

<212> PRT

<213> Homo sapiens

<400> 5792

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&lt;211&gt; 200

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5796

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Gln Thr Gln Met Lys Leu Met Ala Ile Pro Leu Val Phe Gln Ile Met		
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;210&gt; 5800

&lt;211&gt; 535

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5800

Met	Glu	Glu	Gly	Ala	Arg	His	Arg	Asn	Asn	Thr	Glu	Lys	Lys	His	Pro
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Gly	Gly	Gly	Glu	Ser	Asp	Ala	Ser	Pro	Glu	Ala	Gly	Ser	Gly	Gly	Gly

4965



450		455		460
Leu Gly Val Tyr Trp Gln His Lys Pro Lys Cys Phe Ser Asp Phe Ile				
465		470		475
Glu Leu Leu Thr Leu Val Ser Gln Lys Met Cys Val Val Val Tyr Pro				
	485		490	495
Glu Val Glu Arg Gly Ser Gly Thr Glu Glu Ala Asn Glu Asp Met Glu				
	500		505	510
Glu Gln Gln Gln Pro Met Tyr Gln Pro Thr Pro Thr Lys Asp Lys Asp				
	515		520	525
Val Ala Gly Gln Pro Gln Pro				
530		535		

&lt;210&gt; 5801

&lt;211&gt; 2418

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5801

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2418

&lt;210&gt; 5802

&lt;211&gt; 350

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5802

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Ser Gln Pro Tyr Arg Gly Gly Phe His Glu Asp Gln Trp Glu Lys Glu			
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Phe Glu Lys Val Pro Leu Phe Met Ser Arg Ala Pro Ser Glu Ile Asp			
	35	40	45
Pro Arg Glu Asn Pro Asp Leu Ala Cys Leu Gln Ser Ile Ile Phe Asp			
	50	55	60
Glu Glu Arg Ser Pro Glu Glu Gln Ala Lys Thr Tyr Lys Asp Glu Gly			
65	70	75	80
Asn Asp Tyr Phe Lys Glu Lys Asp Tyr Lys Lys Ala Val Ile Ser Tyr			
	85	90	95
Thr Glu Gly Leu Lys Lys Lys Cys Ala Asp Pro Asp Leu Asn Ala Val			
	100	105	110
Leu Tyr Thr Asn Arg Ala Ala Ala Gln Tyr Tyr Leu Gly Asn Phe Arg			
	115	120	125
Ser Ala Leu Asn Asp Val Thr Ala Ala Arg Lys Leu Lys Pro Cys His			
	130	135	140
Leu Lys Ala Ile Ile Arg Gly Ala Leu Cys His Leu Glu Leu Lys His			
145	150	155	160
Phe Ala Glu Ala Val Asn Trp Cys Asp Glu Gly Leu Gln Ile Asp Ala			
	165	170	175
Lys Glu Lys Lys Leu Leu Glu Met Arg Ala Lys Ala Asp Lys Leu Lys			
	180	185	190
Arg Ile Glu Gln Arg Asp Val Arg Lys Ala Asn Leu Lys Glu Lys Lys			
	195	200	205
Glu Arg Asn Gln Asn Glu Ala Leu Leu Gln Ala Ile Lys Ala Arg Asn			
	210	215	220
Ile Arg Leu Ser Glu Ala Ala Cys Glu Asp Glu Asp Ser Ala Ser Glu			
225	230	235	240
Gly Leu Gly Glu Leu Phe Leu Asp Gly Leu Ser Thr Glu Asn Pro His			
	245	250	255
Gly Ala Arg Leu Ser Leu Asp Gly Gln Gly Arg Leu Ser Trp Pro Val			
	260	265	270
Leu Phe Leu Tyr Pro Glu Tyr Ala Gln Ser Asp Phe Ile Ser Ala Phe			
	275	280	285
His Glu Asp Ser Arg Phe Ile Asp His Leu Met Val Met Phe Gly Glu			
	290	295	300
Thr Pro Ser Trp Asp Leu Glu Gln Lys Tyr Cys Leu Ile Ile Trp Arg			
305	310	315	320
Ser Thr Leu Arg Met Arg Thr Gly Gln Asn Tyr Thr Gly Cys Leu Pro			
	325	330	335
Arg Ala Pro Cys Tyr Arg Phe Tyr Ser Thr Arg Gly Thr Leu			
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&lt;210&gt; 5803

&lt;211&gt; 692

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5803

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 660  
 attaaaaatt aaaaaaaaaa aaaaaaaaaa aa  
 692

&lt;210&gt; 5804

&lt;211&gt; 126

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5804

Met	Ala	Pro	Gly	Glu	Val	Thr	Ile	Thr	Val	Arg	Leu	Ile	Arg	Ser	Phe
1				5					10					15	
Glu	His	Arg	Asn	Phe	Lys	Pro	Val	Val	Tyr	His	Gly	Val	Asn	Leu	Asp
			20					25					30		
Gln	Thr	Val	Lys	Glu	Phe	Ile	Val	Phe	Leu	Lys	Gln	Asp	Val	Pro	Leu
		35					40					45			
Arg	Thr	Asn	Leu	Pro	Pro	Pro	Phe	Arg	Asn	Tyr	Lys	Tyr	Asp	Ala	Leu
	50					55					60				
Lys	Ile	Ile	His	Gln	Ala	His	Lys	Ser	Lys	Thr	Asn	Glu	Leu	Val	Leu
65				70					75					80	
Ser	Leu	Glu	Asp	Asp	Glu	Arg	Leu	Leu	Leu	Lys	Glu	Asp	Ser	Thr	Leu
			85						90					95	
Lys	Ala	Ala	Gly	Ile	Ala	Ser	Glu	Thr	Glu	Ile	Ala	Phe	Phe	Cys	Glu
		100						105					110		
Glu	Asp	Tyr	Arg	Asn	Tyr	Lys	Ala	Asn	Pro	Ile	Ser	Ser	Trp		
		115					120						125		

&lt;210&gt; 5805

&lt;211&gt; 1112

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5805

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1112

&lt;210&gt; 5806

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5806

Met	Ser	Ile	Tyr	Phe	Pro	Ile	His	Cys	Pro	Asp	Tyr	Leu	Arg	Ser	Ala
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Lys	Met	Thr	Glu	Val	Met	Met	Asn	Thr	Gln	Pro	Met	Glu	Glu	Ile	Gly
			20					25					30		
Leu	Ser	Pro	Arg	Lys	Asp	Gly	Leu	Ser	Tyr	Gln	Ile	Phe	Pro	Asp	Pro
		35				40					45				
Ser	Asp	Phe	Asp	Arg	Cys	Cys	Lys	Leu	Lys	Asp	Arg	Leu	Pro	Ser	Ile
	50					55				60					
Val	Val	Glu	Pro	Thr	Glu	Gly	Glu	Val	Glu	Ser	Gly	Glu	Leu	Arg	Trp
65					70				75					80	
Pro	Pro	Glu	Glu	Phe	Leu	Val	Gln	Glu	Asp	Glu	Gln	Asp	Asn	Cys	Glu
				85				90						95	
Glu	Thr	Ala	Lys	Glu	Asn	Lys	Glu	Gln							

100

105

&lt;210&gt; 5807

&lt;211&gt; 1429

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5807

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<210> 5808

<211> 261

<212> PRT

<213> Homo sapiens

<400> 5808

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		20						25				30			
Leu	Leu	Gly	Gly	Ile	Pro	Glu	Ser	Gly	Gly	Pro	Asp	Ala	Arg	Gln	Gly
		35						40				45			
Trp	Leu	Ala	Ala	Leu	Gln	Asp	Arg	Ser	Ile	Leu	Ala	Pro	Leu	Ala	Trp
		50						55				60			
Asp	Leu	Gly	Leu	Leu	Leu	Leu	Phe	Val	Gly	Gln	His	Ser	Leu	Met	Ala
65						70				75					80
Ala	Glu	Arg	Val	Lys	Ala	Trp	Thr	Ser	Arg	Tyr	Phe	Gly	Val	Leu	Gln
				85					90					95	
Arg	Ser	Leu	Tyr	Val	Ala	Cys	Thr	Ala	Leu	Ala	Leu	Gln	Leu	Val	Met
			100					105					110		
Arg	Tyr	Trp	Glu	Pro	Ile	Pro	Lys	Gly	Pro	Val	Leu	Trp	Glu	Ala	Arg
		115						120					125		
Ala	Glu	Pro	Trp	Ala	Thr	Trp	Val	Pro	Leu	Leu	Cys	Phe	Val	Leu	His
		130					135					140			
Val	Ile	Ser	Trp	Leu	Leu	Ile	Phe	Ser	Ile	Leu	Leu	Val	Phe	Asp	Tyr
145						150				155					160
Ala	Glu	Leu	Met	Gly	Leu	Lys	Gln	Val	Tyr	Tyr	His	Val	Leu	Gly	Leu
				165					170					175	
Gly	Glu	Pro	Leu	Ala	Leu	Lys	Ser	Pro	Arg	Ala	Leu	Arg	Leu	Phe	Ser
			180					185					190		
His	Leu	Arg	His	Pro	Val	Cys	Val	Glu	Leu	Leu	Thr	Val	Leu	Trp	Val
		195						200					205		
Val	Pro	Thr	Leu	Gly	Thr	Asp	Arg	Leu	Leu	Leu	Ala	Phe	Leu	Leu	Thr
		210				215					220				
Leu	Tyr	Leu	Gly	Leu	Ala	His	Gly	Leu	Asp	Gln	Gln	Asp	Leu	Arg	Tyr
225					230					235					240
Leu	Arg	Ala	Gln	Leu	Gln	Arg	Lys	Leu	His	Leu	Leu	Ser	Arg	Pro	Gln
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<210> 5809

<211> 2009

<212> DNA

<213> Homo sapiens

<400> 5809

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<210> 5810

<211> 52

<212> PRT

<213> Homo sapiens

<400> 5810

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Gly	Gly	Gln	Trp	Arg	Asp	Leu	Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gly
			20					25					30		
Phe	Lys	Gln	Phe	Ser	Cys	Leu	Ser	Leu	Leu	Ser	Ser	Trp	His	Tyr	Lys
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His	Pro	Thr	Pro												
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<210> 5811

<211> 1607

<212> DNA

<213> Homo sapiens

<400> 5811

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<210> 5812

<211> 463

<212> PRT

<213> Homo sapiens

<400> 5812

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Glu	Arg	Ser	His	Ala	Val	Ile	Arg	Ser	Leu	Glu	Ala	Ala	Asp	Leu	Pro
			20					25					30		
Thr	Pro	Gln	Ala	Ile	Glu	Pro	Gln	Ala	Ile	Val	Gln	Gln	Val	Pro	Ala
			35					40					45		
Pro	Ser	Arg	Met	Gln	Met	Pro	Gln	Gly	Asn	Pro	Leu	Leu	Leu	Ser	His
			50				55				60				
Thr	Leu	Gln	Glu	Leu	Leu	Ala	Arg	Asp	Thr	Val	Gln	Val	Glu	Leu	Ile
65					70					75				80	
Pro	Glu	Lys	Lys	Gly	Leu	Phe	Leu	Lys	His	Val	Glu	Tyr	Glu	Val	Ser
			85					90					95		
Ser	Gln	Arg	Phe	Lys	Ser	Ser	Val	Tyr	Arg	Arg	Tyr	Asn	Asp	Phe	Val
			100					105					110		
Val	Phe	Gln	Glu	Met	Leu	Leu	His	Lys	Phe	Pro	Tyr	Arg	Met	Val	Pro

```

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      130      135      140
Ala Arg Arg Arg Ala Leu Lys Arg Phe Val Asn Leu Val Ala Arg His
      145      150      155      160
Pro Leu Phe Ser Glu Asp Val Val Leu Lys Leu Phe Leu Ser Phe Ser
      165      170      175
Gly Ser Asp Val Gln Asn Lys Leu Lys Glu Ser Ala Gln Cys Val Gly
      180      185      190
Asp Glu Phe Leu Asn Cys Lys Leu Ala Thr Arg Ala Lys Asp Phe Leu
      195      200      205
Pro Ala Asp Ile Gln Ala Gln Phe Ala Ile Ser Arg Glu Leu Ile Arg
      210      215      220
Asn Ile Tyr Asn Ser Phe His Lys Leu Arg Asp Arg Ala Glu Arg Ile
      225      230      235      240
Ala Ser Arg Ala Ile Asp Asn Ala Ala Asp Leu Leu Ile Phe Gly Lys
      245      250      255
Glu Leu Ser Ala Ile Gly Ser Asp Thr Thr Pro Leu Pro Ser Trp Ala
      260      265      270
Ala Leu Asn Ser Ser Thr Trp Gly Ser Leu Lys Gln Ala Leu Lys Gly
      275      280      285
Leu Ser Val Glu Phe Ala Leu Leu Ala Asp Lys Ala Ala Gln Gln Gly
      290      295      300
Lys Gln Glu Glu Asn Asp Val Val Glu Lys Leu Asn Leu Phe Leu Asp
      305      310      315      320
Leu Leu Gln Ser Tyr Lys Asp Leu Cys Glu Arg His Glu Lys Gly Val
      325      330      335
Leu His Lys His Gln Arg Ala Leu His Lys Tyr Ser Leu Met Lys Arg
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Gln Met Met Ser Ala Thr Ala Gln Asn Arg Glu Pro Glu Ser Val Glu
      355      360      365
Gln Leu Glu Ser Arg Ile Val Glu Gln Glu Asn Ala Ile Gln Thr Met
      370      375      380
Glu Leu Arg Asn Tyr Phe Ser Leu Tyr Cys Leu His Gln Glu Thr Gln
      385      390      395      400
Leu Ile His Val Tyr Leu Pro Leu Thr Ser His Ile Leu Arg Ala Phe
      405      410      415
Val Asn Ser Gln Ile Gln Gly His Lys Glu Met Ser Lys Val Trp Asn
      420      425      430
Asp Leu Arg Pro Lys Leu Ser Cys Leu Phe Ala Gly Pro His Ser Thr
      435      440      445
Leu Thr Pro Pro Cys Ser Pro Pro Glu Asp Gly Leu Cys Pro His
      450      455      460

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&lt;210&gt; 5813

&lt;211&gt; 2991

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5813

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aaccgaactt cattacatcc tgtatgtcga gagcaaacac attgggacgt ggctgatggg
120

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&lt;210&gt; 5814

&lt;211&gt; 149

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5814

Ala	Ser	Ser	Glu	Glu	Leu	Lys	Ala	Ala	Tyr	Arg	Arg	Leu	Cys	Met	Leu
1				5					10					15	
Tyr	His	Pro	Asp	Lys	His	Arg	Asp	Pro	Glu	Leu	Lys	Ser	Gln	Ala	Glu
			20					25					30		
Arg	Leu	Phe	Asn	Leu	Val	His	Gln	Ala	Tyr	Glu	Val	Leu	Ser	Asp	Pro

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      35      40      45
Gln Thr Arg Ala Ile Tyr Asp Ile Tyr Gly Lys Arg Gly Leu Glu Met
      50      55      60
Glu Gly Trp Glu Val Val Glu Arg Arg Arg Thr Pro Ala Glu Ile Arg
65      70      75      80
Glu Glu Phe Glu Arg Leu Gln Arg Glu Arg Glu Glu Arg Arg Leu Gln
      85      90      95
Gln Arg Thr Asn Pro Lys Leu Cys Asp Asn Lys Leu Cys Ser Ala Val
      100      105      110
Phe Ile Pro Trp Asn Pro Thr Arg Pro Asp His Cys Pro Ser Ser Glu
      115      120      125
Pro Arg Gln Glu His Arg Gly Leu Pro Ala Val Ala Met Gly Tyr Pro
      130      135      140
Val Ser His Glu His
145

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&lt;210&gt; 5815

&lt;211&gt; 590

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens ..

&lt;400&gt; 5815

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&lt;210&gt; 5816

&lt;211&gt; 196

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5816

```

Phe Ile Gln Ala Ala Leu Gly Asp Gln Pro Arg Asp Ile Leu Cys Gly
1      5      10      15
Ala Ala Asp Glu Val Leu Ala Val Leu Lys Asn Glu Lys Leu Arg Asp
20      25      30
Lys Glu Arg Arg Lys Glu Ile Asp Leu Leu Leu Gly Gln Thr Asp Asp

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35	40	45
Thr Arg Tyr His Val Leu Val Asn Leu Gly Leu Pro Ser Leu Phe Ser		
50	55	60
Phe Gly Leu Val Asp Asp Ala His His Leu Ile Asn Ala Leu Arg Gln		
65	70	75
Gln Ser Ile Thr Leu His Leu Val Asp Val Met Pro Val Leu Ile Thr		
85	90	95
Leu Ser Ser Leu Gly Ser Ser Phe Leu Leu His Leu Arg Phe Gly Pro		
100	105	110
Leu Ser Leu Val Ser His Thr Gly Ala Leu Gln Leu Pro Asn Lys Gly		
115	120	125
Gln His Leu Ser Cys Gly Phe Ile Pro Ala Gly Pro Val Asn Glu Arg		
130	135	140
Thr Val Ser Leu Glu His Lys Ile Arg Val Arg Leu Val Leu Val Leu		
145	150	155
Gln Thr Thr Gly Gly Tyr Ile Arg His Gly Arg Gly Cys Ser Glu Ala		
165	170	175
Ser Asp His His Ala Ser Ile Pro Gln Ala Ala Asn Gly Arg Arg Ser		
180	185	190
Leu Leu Leu Ala		
195		

&lt;210&gt; 5817

&lt;211&gt; 648

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5817

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&lt;210&gt; 5818

&lt;211&gt; 191

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5818

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          20           25           30
Met Asn Asn Gly Ser Pro Thr Ala Leu Ser Gly Ser Lys Thr Asn Ser
          35           40           45
Pro Lys Asn Ser Val His Lys Leu Asp Val Ser Arg Ser Pro Pro Leu
          50           55           60
Met Val Lys Lys Asn Pro Ala Phe Asn Lys Gly Ser Gly Ile Val Thr
65           70           75           80
Asn Gly Ser Phe Ser Ser Ser Asn Ala Glu Gly Leu Glu Lys Thr Gln
          85           90           95
Thr Thr Pro Asn Gly Ser Leu Gln Ala Arg Arg Ser Ser Ser Leu Lys
          100          105          110
Val Ser Gly Thr Lys Met Gly Thr His Ser Val Gln Asn Gly Thr Val
          115          120          125
Arg Met Gly Ile Leu Asn Ser Asp Thr Leu Gly Asn Pro Thr Asn Val..
          130          135          140
Arg Asn Met Ser Trp Leu Pro Asn Gly Tyr Val Thr Leu Arg Asp Asn
145          150          155          160
Lys Gln Lys Glu Gln Ala Gly Glu Leu Gly Gln His Asn Arg Leu Ser
          165          170          175
Pro Met Ile Met Ser Ile Thr Val Leu His Asp Glu Leu Asp Asp
          180          185          190

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<210> 5819

<211> 1652

<212> DNA

<213> Homo sapiens

<400> 5819

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240
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480
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atggctgcca tcaatagcat ctacagcaac cctgacgcca acatcttggt ctatgtagtg
600

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&lt;210&gt; 5820

&lt;211&gt; 274

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5820

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			20					25					30		
Pro	Lys	Asn	Asp	Ala	Asp	Asp	Glu	Ser	Glu	Thr	Pro	Glu	Glu	Leu	Glu
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<211> 3292
<212> DNA
<213> Homo sapiens
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&lt;210&gt; 5822

&lt;211&gt; 712

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5822

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Leu	Ala	Leu	His	Ile	Glu	Ser	Ser	Ser	Arg	Asn	Gln	Ala	Ala	Gln	Ala
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Lys	Ser	Pro	Thr	Ser	Leu	Lys	Arg	Glu	Thr	Tyr	Tyr	Leu	Ser	Asp	Ser		
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&lt;211&gt; 2585

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5823

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 Thr Leu Asp Asp Ile Phe Asp Gly Ser Asp Asp Glu Glu Glu Ser Gln  
 145 150 155 160  
 Asp Ile Val Asn Gln Val Leu Asp Glu Ile Gly Ile Glu Ile Ser Gly  
 165 170 175  
 Lys Met Ala Lys Ala Pro Ser Ala Ala Arg Ser Leu Pro Ser Ala Ser  
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 <213> Homo sapiens

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<211> 1479

<212> PRT

<213> Homo sapiens

<400> 5830

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Ile Gln Phe Leu Asn Lys Cys Phe Gln Val Gln Gly Gln Glu Pro Gln						
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Ser Arg Val Lys Trp Ser Glu Ala Gln Phe Ser Cys Glu Gln Gln Glu						
	995		1000		1005	
Ala Gln Leu Val Thr Ile Thr Asn Pro Leu Glu Gln Ala Phe Ile Thr						
	1010		1015		1020	
Ala Ser Leu Pro Asn Val Thr Phe Asp Leu Trp Ile Gly Leu His Ala						
1025		1030		1035		1040
Ser Gln Arg Asp Phe Gln Trp Val Glu Gln Glu Pro Leu Met Tyr Ala						
	1045		1050		1055	
Asn Trp Ala Pro Gly Glu Pro Ser Gly Pro Ser Pro Ala Pro Ser Gly						
	1060		1065		1070	
Asn Lys Pro Thr Ser Cys Ala Val Val Leu His Ser Pro Ser Ala His						
	1075		1080		1085	
Phe Thr Gly Arg Trp Asp Asp Arg Ser Cys Thr Glu Glu Thr His Gly						
	1090		1095		1100	
Phe Ile Cys Gln Lys Gly Thr Asp Pro Ser Leu Ser Pro Ser Pro Ala						
1105		1110		1115		1120
Ala Leu Pro Pro Ala Pro Gly Thr Glu Leu Ser Tyr Leu Asn Gly Thr						
	1125		1130		1135	
Phe Arg Leu Leu Gln Lys Pro Leu Arg Trp His Asp Ala Leu Leu Leu						
	1140		1145		1150	
Cys Glu Ser His Asn Ala Ser Leu Ala Tyr Val Pro Asp Pro Tyr Thr						
	1155		1160		1165	
Gln Ala Phe Leu Thr Gln Ala Ala Arg Gly Leu Arg Thr Pro Leu Trp						
	1170		1175		1180	
Ile Gly Leu Ala Gly Glu Glu Gly Ser Arg Arg Tyr Ser Trp Val Ser						
1185		1190		1195		1200
Glu Glu Pro Leu Asn Tyr Val Gly Trp Gln Asp Gly Glu Pro Gln Gln						
	1205		1210		1215	
Pro Gly Gly Cys Thr Tyr Val Asp Val Asp Gly Ala Trp Arg Thr Thr						

1220 1225 1230  
 Ser Cys Asp Thr Lys Leu Gln Gly Ala Val Cys Gly Val Ser Ser Gly  
 1235 1240 1245  
 Pro Pro Pro Pro Arg Arg Ile Ser Tyr His Gly Ser Cys Pro Gln Gly  
 1250 1255 1260  
 Leu Ala Asp Ser Ala Trp Ile Pro Phe Arg Glu His Cys Tyr Ser Phe  
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 His Met Glu Leu Leu Leu Gly His Lys Glu Ala Arg Gln Arg Cys Gln  
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 Phe Val Trp Glu His Leu Gln Ser Tyr Glu Gly Gln Ser Arg Gly Ala  
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 Trp Leu Gly Met Asn Phe Asn Pro Lys Gly Gly Thr Leu Val Trp Gln  
 1330 1335 1340  
 Asp Asn Thr Ala Val Asn Tyr Ser Asn Trp Gly Pro Pro Gly Leu Gly  
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 Pro Ser Met Leu Ser His Asn Ser Cys Tyr Trp Ile Gln Ser Asn Ser  
 1365 1370 1375  
 Gly Leu Trp Arg Pro Gly Ala Cys Thr Asn Ile Thr Met Gly Val Val  
 1380 1385 1390  
 Cys Lys Leu Pro Arg Ala Glu Gln Ser Ser Phe Ser Pro Ser Ala Leu  
 1395 1400 1405  
 Pro Glu Asn Pro Ala Ala Leu Val Val Val Leu Met Ala Val Leu Leu  
 1410 1415 1420  
 Leu Leu Ala Leu Leu Thr Ala Ala Leu Ile Leu Tyr Arg Arg Arg Gln  
 1425 1430 1435 1440  
 Ser Ile Glu Arg Gly Ala Phe Glu Gly Ala Arg Tyr Ser Arg Ser Ser  
 1445 1450 1455  
 Ser Ser Pro Thr Glu Ala Thr Glu Lys Asn Ile Leu Val Ser Asp Met  
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 Glu Met Asn Glu Gln Gln Glu  
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&lt;210&gt; 5831

&lt;211&gt; 2216

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5831

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 420



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1260  
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1380  
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1620  
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1680  
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1800  
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1860  
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1920  
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1980  
ttcatgaata ataataaata tgtactgctg gcatgtaatg cttagttttc ttgtatttac  
2040



ttcttttttt aaatgtaagg accaaacttc taaactaatt gttcttttgt tgctttaatt  
 2100  
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<210> 5832

<211> 322

<212> PRT

<213> Homo sapiens

<400> 5832

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			20					25					30		
His	Lys	Glu	Phe	Gln	Gln	Asn	Asn	Trp	His	Ala	Val	Gly	Cys	Gly	Phe
		35				40						45			
Arg	Arg	Ala	Arg	Pro	Lys	Phe	Glu	Gln	Val	Asn	Leu	Leu	Asp	Ser	Asn
		50				55					60				
Ala	Val	His	His	Ile	Ile	His	Asp	Phe	Gln	Pro	His	Val	Ile	Val	His
65					70				75					80	
Cys	Ala	Ala	Glu	Arg	Arg	Pro	Asp	Val	Val	Glu	Asn	Gln	Pro	Asp	Ala
				85				90					95		
Ala	Ser	Gln	Leu	Asn	Val	Asp	Ala	Ser	Gly	Asn	Leu	Ala	Lys	Glu	Ala
			100					105					110		
Ala	Ala	Val	Gly	Ala	Phe	Leu	Ile	Tyr	Ile	Ser	Ser	Asp	Tyr	Val	Phe
		115				120						125			
Asp	Gly	Thr	Asn	Pro	Pro	Tyr	Arg	Glu	Glu	Asp	Ile	Pro	Ala	Pro	Leu
		130				135					140				
Asn	Leu	Tyr	Gly	Lys	Thr	Lys	Leu	Asp	Gly	Glu	Lys	Ala	Val	Leu	Glu
145					150				155					160	
Asn	Asn	Leu	Gly	Ala	Ala	Val	Leu	Arg	Ile	Pro	Ile	Leu	Tyr	Gly	Glu
			165					170					175		
Val	Glu	Lys	Leu	Glu	Glu	Ser	Ala	Val	Thr	Val	Met	Phe	Asp	Lys	Val
			180					185					190		
Gln	Phe	Ser	Asn	Lys	Ser	Ala	Asn	Met	Asp	His	Trp	Gln	Gln	Arg	Phe
		195				200						205			
Pro	Thr	His	Val	Lys	Asp	Val	Ala	Thr	Val	Cys	Arg	Gln	Leu	Ala	Glu
		210				215					220				
Lys	Arg	Met	Leu	Asp	Pro	Ser	Ile	Lys	Gly	Thr	Phe	His	Trp	Ser	Gly
225					230				235					240	
Asn	Glu	Gln	Met	Thr	Lys	Tyr	Glu	Met	Ala	Cys	Ala	Ile	Ala	Asp	Ala
			245					250					255		
Phe	Asn	Leu	Pro	Ser	Ser	His	Leu	Arg	Pro	Ile	Thr	Asp	Ser	Pro	Val
		260						265				270			
Leu	Gly	Ala	Gln	Arg	Pro	Arg	Asn	Ala	Gln	Leu	Asp	Cys	Ser	Lys	Leu
		275					280					285			
Glu	Thr	Leu	Gly	Ile	Gly	Gln	Arg	Thr	Pro	Phe	Arg	Ile	Gly	Ile	Lys
		290				295					300				
Glu	Ser	Leu	Trp	Pro	Phe	Leu	Ile	Asp	Lys	Arg	Trp	Arg	Gln	Thr	Val
305					310				315					320	
Phe	His														

<210> 5833  
<211> 805  
<212> DNA  
<213> Homo sapiens

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120  
cctaaacctg tgctccagga agaaaacaac caagagtctt ttattgcatt tgctcgggtg  
180  
ttcagtgggtg tggctcgaag aggaaagaaa atttttgtct tggggcccaa atacagtctt  
240  
cttgagtttt tacgaagggt accattaggtc ttctcagctc caccagatgg cctcccccaa  
300  
gtccccaca tggcatactg tgctctggaa aacctgtatc ttctgatggg aagggaactg  
360  
gaatatctag aggaggtacc tccaggaaat gtgctaggaa taggaggcct tcaagatttt  
420  
gtgctgaaat ctgcaacact gtgtagcctg ccatcctgcc caccatttat accactcaac  
480  
ttcgaagcca ctctatttgt gagagttgct gttgaaccaa aacatccaag tgaaatgcct  
540  
cagctcgtaa aaggaatgaa actgttaaac caggctgatc cctgtgtcca gattttaatt  
600  
caggaaacgg gagagcacgt tttagtcaca gcaggagaag tccaccttca gcgatgcctg  
660  
gatgacttaa aagaaagggt tgcaaagatt catatcagtg tatctgaacc tattattcca  
720  
ttcagagaaa caatcacaaa acccccacaaa gttgacatgg tcaatgaaga aataggcaaa  
780  
cagcaaaaag ttgcagtcac acacc  
805

<210> 5834  
<211> 268  
<212> PRT  
<213> Homo sapiens

<400> 5834  
Lys Leu Ala Ala Ala Gln Gly Gln Ala Pro Leu Glu Pro Thr Gln Asp  
1 5 10 15  
Gly Ser Ala Ile Glu Thr Cys Pro Lys Gly Asp Glu Pro Arg Gly Asp  
20 25 30  
Glu Gln Gln Val Glu Ser Met Thr Pro Lys Pro Val Leu Gln Glu Glu  
35 40 45  
Asn Asn Gln Glu Ser Phe Ile Ala Phe Ala Arg Val Phe Ser Gly Val  
50 55 60  
Ala Arg Arg Gly Lys Lys Ile Phe Val Leu Gly Pro Lys Tyr Ser Pro  
65 70 75 80  
Leu Glu Phe Leu Arg Arg Val Pro Leu Gly Phe Ser Ala Pro Pro Asp

				85				90						95		
Gly	Leu	Pro	Gln	Val	Pro	His	Met	Ala	Tyr	Cys	Ala	Leu	Glu	Asn	Leu	
			100					105					110			
Tyr	Leu	Leu	Met	Gly	Arg	Glu	Leu	Glu	Tyr	Leu	Glu	Glu	Val	Pro	Pro	
		115					120					125				
Gly	Asn	Val	Leu	Gly	Ile	Gly	Gly	Leu	Gln	Asp	Phe	Val	Leu	Lys	Ser	
	130					135					140					
Ala	Thr	Leu	Cys	Ser	Leu	Pro	Ser	Cys	Pro	Pro	Phe	Ile	Pro	Leu	Asn	
145					150					155					160	
Phe	Glu	Ala	Thr	Pro	Ile	Val	Arg	Val	Ala	Val	Glu	Pro	Lys	His	Pro	
			165					170						175		
Ser	Glu	Met	Pro	Gln	Leu	Val	Lys	Gly	Met	Lys	Leu	Leu	Asn	Gln	Ala	
		180					185						190			
Asp	Pro	Cys	Val	Gln	Ile	Leu	Ile	Gln	Glu	Thr	Gly	Glu	His	Val	Leu	
	195					200						205				
Val	Thr	Ala	Gly	Glu	Val	His	Leu	Gln	Arg	Cys	Leu	Asp	Asp	Leu	Lys	
	210					215					220					
Glu	Arg	Phe	Ala	Lys	Ile	His	Ile	Ser	Val	Ser	Glu	Pro	Ile	Ile	Pro	
225				230						235					240	
Phe	Arg	Glu	Thr	Ile	Thr	Lys	Pro	Pro	Lys	Val	Asp	Met	Val	Asn	Glu	
			245					250						255		
Glu	Ile	Gly	Lys	Gln	Gln	Lys	Val	Ala	Val	Ile	His					
			260					265								

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<210> 5835
<211> 420
<212> DNA
<213> Homo sapiens
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120
gcactgcata agcaagttct tatgggccca tataatccag acacttgtec tgaggttgga
180
ttctttgatg tgttggggaa tgacaggagg agagaatggg cagccctggg aaacatgtct
240
aaagaggatg ccatgggtgga gtttgtcaag ctcttaaata ggtgttgcca tctcttttca
300
acatatgttg cgtcccacaa aatagagaag gaagagcaag acaaaaaaag gaaggaggaa
360
gaggagcgaa ggcggcgtga agaggaagaa agagaacgtc tgcaaaagga ggaagagaaa
420

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<210> 5836
<211> 140
<212> PRT
<213> Homo sapiens
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<400> 5836
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 1             5             10             15
Ala Leu Arg Phe Phe Lys Glu Lys Asp Gly Lys Ala Phe His Pro Thr
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	20		25		30										
Tyr	Glu	Glu	Lys	Leu	Lys	Leu	Val	Ala	Leu	His	Lys	Gln	Val	Leu	Met
	35		40		45										
Gly	Pro	Tyr	Asn	Pro	Asp	Thr	Cys	Pro	Glu	Val	Gly	Phe	Phe	Asp	Val
	50		55		60										
Leu	Gly	Asn	Asp	Arg	Arg	Arg	Glu	Trp	Ala	Ala	Leu	Gly	Asn	Met	Ser
65			70		75									80	
Lys	Glu	Asp	Ala	Met	Val	Glu	Phe	Val	Lys	Leu	Leu	Asn	Arg	Cys	Cys
		85			90									95	
His	Leu	Phe	Ser	Thr	Tyr	Val	Ala	Ser	His	Lys	Ile	Glu	Lys	Glu	Glu
	100				105									110	
Gln	Asp	Lys	Lys	Arg	Lys	Glu	Glu	Glu	Glu	Arg	Arg	Arg	Arg	Glu	Glu
	115				120									125	
Glu	Glu	Arg	Glu	Arg	Leu	Gln	Lys	Glu	Glu	Glu	Lys				
	130				135						140				

&lt;210&gt; 5837

&lt;211&gt; 582

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5837

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120
tgggccaagg gggacatcca gggggcaggg gccgcctccc gccgtgcctt cctgctgggg
180
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360
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420
accgctcttc gggcggcagc aacctgagat taaacaccag acacccttgg cctgggctca
480
cgaggaaggg gctgcagttc tccaaggatt cccgcctgct cccagatccc cgggagtcgt
540
aggaaccgct tcctggacgc tgacgtcggc tttcagggat cc
582

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&lt;210&gt; 5838

&lt;211&gt; 88

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5838

Xaa	Arg	Leu	Ser	Pro	Phe	Leu	Pro	His	Asp	His	Leu	Gly	Leu	Ala	Val
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Phe	Ser	Met	Leu	Cys	Cys	Phe	Trp	Pro	Val	Gly	Ile	Ala	Ala	Phe	Cys
	20						25					30			
Leu	Ala	Gln	Lys	Thr	Asn	Lys	Ala	Trp	Ala	Lys	Gly	Asp	Ile	Gln	Gly

	35					40						45							
Ala	Gly	Ala	Ala	Ser	Arg	Arg	Ala	Phe	Leu	Leu	Gly	Val	Leu	Ala	Val				
	50					55					60								
Gly	Leu	Gly	Val	Cys	Thr	Tyr	Ala	Ala	Ala	Leu	Val	Thr	Leu	Ala	Ala				
65					70					75					80				
Tyr	Leu	Ala	Ser	Arg	Asp	Pro	Pro												
					85														

&lt;210&gt; 5839

&lt;211&gt; 1895

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5839

```

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120
cattcgaatg catcccaacc agtgctcagc tgcgtaacga catggagaga ggcagggggg
180
aatagaaagc aaatttataa acaccaacac ccaaacacac aagactgcac acaagaaaaa
240
gtgctcaaga aactttggct ttgaaggga ttcagtgaag ggaagcgatt gtgcaggagg
300
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360
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420
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660
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960
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1020
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1080
tctagacca ccttctggcc acagcagaga atgggattcc atcaaagcct ctcaaccagc
1140
cgtttcccta aagaatcacc cagatcttaa ctgccctctc caccttcttt ttttttcccc
1200

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 1320  
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 1380  
 ctaaaagggtg gctgagggga ggagaggtgc atgtagctcc agctatagca aatcagtgcc  
 1440  
 ctgactcact ggggagaccc aggggggttg gatgttgctg acacctcatg ggccacctca  
 1500  
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 1560  
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 1620  
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 1800  
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 1860  
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 1895

<210> 5840

<211> 138

<212> PRT

<213> Homo sapiens

<400> 5840

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Asn	Asp	Thr	Pro	Gly	Ala	Leu	Leu	Arg	Gly	Glu	Asp	Arg	Cys	Trp	Phe
			20					25					30		
Leu	Met	Val	His	Gly	Trp	Cys	Pro	Val	Ile	Phe	Ser	Trp	Ala	Val	Ala
		35				40					45				
Pro	Arg	Gly	Ser	Gly	Phe	Pro	Ala	Gln	Gly	Ile	Phe	Asp	Pro	Cys	Gln
	50					55					60				
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<210> 5844

<211> 823

<212> PRT

<213> Homo sapiens

<400> 5844

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&lt;210&gt; 5845

&lt;211&gt; 2762

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5845

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&lt;210&gt; 5846

&lt;211&gt; 257

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5846

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			100					105					110		
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			180					185					190		
Gln	Cys	Leu	Arg	Asp	Glu	Leu	Gln	Met	Met	Gln	Lys	Asp	Lys	Arg	Phe
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Glu

&lt;210&gt; 5847

&lt;211&gt; 1021

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5847

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&lt;210&gt; 5848

&lt;211&gt; 120

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5848

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			20					25					30		
Leu	Ser	Arg	His	Thr	Val	Lys	Pro	Arg	Ala	Leu	Ser	Thr	Phe	Leu	Phe
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<210> 5849

<211> 3174

<212> DNA

<213> Homo sapiens

<400> 5849

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&lt;210&gt; 5850

&lt;211&gt; 154

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5850

Gly	Ala	Gly	Lys	Val	Ala	Ala	Val	Leu	Asp	Ala	His	Leu	Ser	Arg	Gln
1			5					10					15		
His	Ser	Val	Pro	Ala	Tyr	Pro	Trp	Asp	Trp	Gly	His	Leu	Ile	Arg	Phe
		20						25					30		
Cys	Thr	Gln	Thr	Gly	His	Ala	Gln	Pro	Cys	Pro	Ser	Ala	Pro	Ser	Thr
		35					40					45			
Gly	Pro	Ile	His	Ile	Ala	Glu	Gly	Gly	Arg	Gly	Arg	Pro	Pro	Pro	Gly
	50					55				60					
Ser	Ala	Ser	Asn	Pro	Gln	Pro	Pro	Gly	Ser	Pro	His	Cys	Pro	Ser	Ala
65					70					75				80	
Gly	Leu	Ser	Pro	Val	Pro	Gly	Val	Gly	Gly	Arg	Gln	Cys	Pro	Gly	Thr
			85					90						95	
Val	Pro	Arg	Val	Arg	Arg	Pro	Gly	Leu	Ala	Gly	His	Pro	Val	Thr	His
			100					105					110		
Arg	Ile	Asn	Arg	Lys	Thr	Ala	Ser	Pro	Pro	Asn	Leu	Cys	Pro	Arg	His
		115					120					125			
Asn	Met	Ser	Arg	Ser	Glu	Ser	Cys	Thr	Pro	Arg	Ser	Arg	Ala	Pro	Leu
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Gln	Arg	Thr	Leu	Thr	Pro	Pro	Arg	Gly	Ala						
145						150									

&lt;210&gt; 5851

&lt;211&gt; 488

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5851

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 480  
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 488

&lt;210&gt; 5852

&lt;211&gt; 82

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5852

Met	Trp	Lys	Gly	Leu	Val	Lys	Arg	Asn	Ala	Ser	Val	Glu	Thr	Val	Asp
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Asn	Lys	Thr	Ser	Glu	Asp	Val	Thr	Met	Ala	Ala	Ala	Ser	Pro	Val	Thr
			20					25					30		
Leu	Thr	Lys	Gly	Thr	Ser	Ala	Ala	His	Leu	Asn	Ser	Met	Glu	Val	Thr
		35					40					45			
Thr	Glu	Asp	Thr	Ser	Arg	Thr	Asp	Ala	Tyr	Glu	Ser	Tyr	Lys	Lys	Lys
	50					55				60					
Asp	Tyr	Thr	Gln	Val	Asp	Tyr	Leu	Ile	Asn	Gly	Met	Tyr	Ala	Asp	Ser
65					70					75				80	
Glu	Met														

&lt;210&gt; 5853

&lt;211&gt; 487

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5853

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420  
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480  
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487

&lt;210&gt; 5854

&lt;211&gt; 68

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5854

Arg	Glu	Trp	Lys	Val	Gln	Arg	Pro	Glu	Leu	Arg	Glu	Ala	Ser	Gly	Asp
1				5				10					15		
Tyr	Arg	Arg	Ser	Gln	Glu	Gly	Gly	Pro	Ala	Arg	Pro	Ala	Ala	Pro	Asp
			20					25					30		
Thr	Pro	Ser	Gly	Arg	Ser	Gly	Pro	Ala	Ala	Pro	Trp	Arg	Thr	Pro	Ala
			35				40					45			
Arg	Thr	Pro	Pro	Arg	Leu	Leu	Pro	Thr	Leu	Cys	Pro	Val	Thr	Pro	Val
	50					55					60				
Ser	Trp	Pro	Leu												
65															

&lt;210&gt; 5855

&lt;211&gt; 362

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5855

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362

&lt;210&gt; 5856

&lt;211&gt; 113

&lt;212&gt; PRT

<213> Homo sapiens

<400> 5856

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      20           25           30
Ser Pro Pro Asp Pro Pro Ala Gly Thr Cys Trp Gly Leu Trp Gly Pro
      35           40           45
Lys Arg Glu Gly Val Asn Glu Val Val Ala Glu Val Leu Leu Ala Ala
      50           55           60
His Glu Gly Val Gly Asp Gln Gly Glu Ala Gly Ala His Pro Val Leu
65           70           75           80
Ser Asp Ala Gly Leu Leu Val Leu Gly Leu Arg Ala Ala Leu Gly Glu
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His Gln Ala His Leu Gly Ser Ala Leu Asn Glu His Gln Arg Val Leu
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<210> 5857

<211> 1751

<212> DNA

<213> Homo sapiens

<400> 5857

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240
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840

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&lt;210&gt; 5858

&lt;211&gt; 434

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5858

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Gly	Arg	Pro	Ser	Arg	Gly	Arg	Pro	Pro	Lys	Leu	Gln	Arg	Asn	Ser	Arg
			20					25					30		
Gly	Gly	Gln	Gly	Arg	Gly	Gly	Glu	Lys	Pro	Pro	His	Leu	Ala	Ala	Leu
		35					40					45			
Ile	Leu	Ala	Arg	Gly	Gly	Ser	Lys	Gly	Ile	Pro	Leu	Lys	Asn	Ile	Lys
	50					55					60				
His	Leu	Ala	Gly	Val	Pro	Leu	Ile	Gly	Trp	Val	Leu	Arg	Ala	Ala	Leu
65					70				75					80	
Asp	Ser	Gly	Ala	Phe	Gln	Ser	Val	Trp	Val	Ser	Thr	Asp	His	Asp	Glu
			85					90						95	
Ile	Glu	Asn	Val	Ala	Lys	Gln	Phe	Gly	Ala	Gln	Val	His	Arg	Arg	Ser
			100					105					110		
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[illegible]

<210> 5859

<211> 2267

<212> DNA

<213> Homo sapiens

<400> 5859

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aaatcacaac ctcctctttg attccccttc acgctaagcc tctttcaaatt tctttttcct

180

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<210> 5860

<211> 96

<212> PRT

<213> Homo sapiens

<400> 5860

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			20					25					30		
Ser	Arg	Ala	Ser	Glu	Ala	Ser	Gly	Ser	Leu	Leu	Leu	Arg	Phe	Phe	Leu
		35					40					45			
Gln	Met	Gly	Leu	Gly	Arg	Cys	Arg	Phe	Cys	Phe	Ser	Pro	Trp	Leu	Pro
	50					55					60				
Val	Arg	Pro	Gln	Pro	Ser	Gly	Cys	Asp	Ile	Ile	Glu	Ser	Ala	Val	Ser
65					70				75					80	
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<210> 5861

<211> 1951

<212> DNA

<213> Homo sapiens

<400> 5861

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<210> 5862  
 <211> 514  
 <212> PRT  
 <213> Homo sapiens

<400> 5862

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           35           40           45
Thr Leu Gln Gln Arg Val Phe Gln Ile Leu Asp Ser Lys Leu Phe Glu
           50           55           60
Lys Val Lys Glu Val Cys Pro Asn Val His Glu Lys Ile Arg Ala Ile
65           70           75           80
Tyr Ala Asp Leu Asn Gln Asn Asp Phe Ala Ile Ser Lys Glu Asp Met
           85           90           95
Gln Glu Leu Leu Ser Cys Thr Asn Ile Ile Phe His Cys Ala Ala Thr
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           115          120          125
Ala Thr Arg Gln Leu Leu Leu Met Ala Ser Gln Met Pro Lys Leu Glu
           130          135          140
Ala Phe Ile His Ile Ser Thr Ala Tyr Ser Asn Cys Asn Leu Lys His
145          150          155          160
Ile Asp Glu Val Ile Tyr Pro Cys Pro Val Glu Pro Lys Lys Lys Ile
           165          170          175
Ile Asp Ser Leu Glu Trp Leu Asp Asp Ala Ile Ile Asp Glu Ile Thr
           180          185          190
Pro Lys Leu Ile Arg Asp Trp Pro Asn Ile Tyr Thr Tyr Thr Lys Ala
           195          200          205
Leu Gly Glu Met Val Val Gln Gln Glu Ser Arg Asn Leu Asn Ile Ala
           210          215          220
Ile Ile Arg Pro Ser Ile Val Gly Ala Thr Trp Gln Glu Pro Phe Pro
225          230          235          240
Gly Trp Val Asp Asn Ile Asn Gly Pro Asn Gly Ile Ile Ile Ala Thr
           245          250          255
Gly Lys Gly Phe Leu Arg Ala Ile Lys Ala Thr Pro Met Ala Val Ala
           260          265          270
Asp Val Ile Pro Val Asp Thr Val Val Asn Leu Met Leu Ala Val Gly
           275          280          285
Trp Tyr Thr Ala Val His Arg Pro Lys Ser Thr Leu Val Tyr His Ile
           290          295          300
Thr Ser Gly Asn Met Asn Pro Cys Asn Trp His Lys Met Gly Val Gln
305          310          315          320
Val Leu Ala Thr Phe Glu Lys Ile Pro Phe Glu Arg Pro Phe Arg Arg
           325          330          335
Pro Asn Ala Asn Phe Thr Ser Asn Ser Phe Thr Ser Gln Tyr Trp Asn
           340          345          350
Ala Val Ser His Arg Ala Pro Ala Ile Ile Tyr Asp Cys Tyr Leu Arg
           355          360          365
Leu Thr Gly Arg Lys Pro Arg Met Thr Lys Leu Met Asn Arg Leu Leu

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370 375 380  
 Arg Thr Val Ser Met Leu Glu Tyr Phe Ile Asn Arg Ser Trp Glu Trp  
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 Ser Thr Tyr Asn Thr Glu Met Leu Met Ser Glu Leu Ser Pro Glu Asp  
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 Gln Arg Val Phe Asn Phe Asp Val Arg Gln Leu Asn Trp Leu Glu Tyr  
 420 425 430  
 Ile Glu Asn Tyr Val Leu Gly Val Lys Lys Tyr Leu Leu Lys Glu Asp  
 435 440 445  
 Met Ala Gly Ile Pro Lys Ala Lys Gln Arg Leu Lys Arg Leu Arg Asn  
 450 455 460  
 Ile His Tyr Leu Phe Asn Thr Ala Leu Phe Leu Ile Ala Trp Arg Leu  
 465 470 475 480  
 Leu Ile Ala Arg Ser Gln Met Ala Arg Asn Val Trp Phe Phe Ile Val  
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<210> 5863  
 <211> 438  
 <212> DNA  
 <213> Homo sapiens

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 240  
 tgattgatac tcagccatga aagggacata gctcagatac tgacaaaaca gctttgtatt  
 300  
 tgagtgtgtt tgtccaactg gcaaggaaca gtctggggac aaacagtgcc ttatttggag  
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 420  
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 438

<210> 5864  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 5864  
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 20 25 30  
 Cys Gln Tyr Leu Ser Tyr Val Pro Phe Met Ala Glu Tyr Gln Ser Lys

35 40 45  
 Gln Pro Leu Glu Gln Gly Arg Thr Ser Val Phe Thr Leu Gly Ser Pro  
 50 55 60  
 Gly Tyr Gln Asn Pro Ala Pro Phe Ser Ile Asn Gln Ser Gln Thr Val  
 65 70 75 80  
 Asn Val Lys Thr Gly Thr Ser Cys Leu Glu Thr Gln Ile Leu Phe Gln  
 85 90 95  
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<210> 5865

<211> 1229

<212> DNA

<213> Homo sapiens

<400> 5865

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 120  
 aacaaccag gcatagtctt aacctttgtg cttcccacgg agcagttcca cttaggcaag  
 180  
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 240  
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 300  
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 420  
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 480  
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 780  
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 1080  
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 1140

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<210> 5866  
<211> 212  
<212> PRT  
<213> Homo sapiens

<400> 5866  
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Arg Ala Gly Arg Thr Ala Arg Ala Asn Asn Pro Gly Ile Val Leu Thr  
35 40 45  
Phe Val Leu Pro Thr Glu Gln Phe His Leu Gly Lys Ile Glu Glu Leu  
50 55 60  
Leu Val Glu Arg Thr Gly Ala Pro Phe Cys Ser Pro Thr Ser Ser Gly  
65 70 75 80  
Trp Arg Arg Ser Arg Ala Ser Ala Ile Ala Ala Gly Val His Pro Gln  
85 90 95  
Asp Ala Met Arg Ser Val Thr Lys Gln Ala Ile Arg Glu Ala Arg Leu  
100 105 110  
Lys Glu Ile Lys Glu Glu Leu Leu His Ser Glu Lys Leu Lys Thr Tyr  
115 120 125  
Phe Glu Asp Asn Pro Arg Asp Leu Gln Leu Leu Arg His Asp Leu Pro  
130 135 140  
Leu His Pro Ala Val Val Lys Pro His Leu Gly His Val Pro Asp Tyr  
145 150 155 160  
Leu Val Pro Pro Ala Leu Arg Gly Leu Val Arg Pro His Lys Lys Arg  
165 170 175  
Lys Lys Leu Ser Ser Ser Cys Arg Lys Ala Lys Arg Ala Lys Ser Gln  
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Asn Pro Leu Arg Ser Phe Lys His Lys Gly Lys Lys Phe Arg Pro Thr  
195 200 205  
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210

<210> 5867  
<211> 1882  
<212> DNA  
<213> Homo sapiens

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gcgtcccatt gccttcactg cccgttccag gaagctctgg atcaacttca agacaagcga  
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240

gctggtagaa gacattgtgc gagatggccg gctctatgcc tctgaaaacc accaggagat  
300  
tttaaaggac aagaagctca tcaaggcctt ctttgagggtg ctagcccacc cccagaacta  
360  
cttcaagtac acagagaaac acaaggagat gctgccaaaa tccttcatca agctgctccg  
420  
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480  
ttttttaagc cccagactc cttagccctc agagccggca gccccctacc ctcagacaag  
540  
gaactctctc ctctcttttt ggagggaaaa aaaaatatca ctacacaaac caggcactct  
600  
ccctttctgt ctttctagtt tcctttcctt gtctctctct gcctgcctct ctactgttcc  
660  
cccttttcta acacactacc tagaaaagcc attcagtact ggctctagtc cccgtgagat  
720  
gtaaagaaac agtacagccc cttccactgc ccattttacc agctcacatt cccgacccca  
780  
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960  
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1080  
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1140  
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1260  
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1860



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1882

<210> 5868

<211> 131

<212> PRT

<213> Homo sapiens

<400> 5868

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Gln	Thr	Tyr	Glu	Arg	Pro	Ile	Ala	Phe	Thr	Ala	Arg	Ser	Arg	Lys	Leu
			20					25					30		
Trp	Ile	Asn	Phe	Lys	Thr	Ser	Glu	Ala	Asn	Ser	Ala	Arg	Gly	Phe	Gln
		35					40					45			
Ile	Pro	Tyr	Val	Thr	Tyr	Asp	Glu	Asp	Tyr	Glu	Gln	Leu	Val	Glu	Asp
	50					55					60				
Ile	Val	Arg	Asp	Gly	Arg	Leu	Tyr	Ala	Ser	Glu	Asn	His	Gln	Glu	Ile
65					70					75				80	
Leu	Lys	Asp	Lys	Lys	Leu	Ile	Lys	Ala	Phe	Phe	Glu	Val	Leu	Ala	His
			85						90					95	
Pro	Gln	Asn	Tyr	Phe	Lys	Tyr	Thr	Glu	Lys	His	Lys	Glu	Met	Leu	Pro
		100						105					110		
Lys	Ser	Phe	Ile	Lys	Leu	Leu	Arg	Ser	Lys	Val	Ser	Ser	Phe	Leu	Arg
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Pro	Tyr	Lys													
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<210> 5869

<211> 910

<212> DNA

<213> Homo sapiens

<400> 5869

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120  
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180  
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240  
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300  
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360  
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420  
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480  
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540  
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600

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 720  
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<210> 5870

<211> 129

<212> PRT

<213> Homo sapiens

<400> 5870

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Ser	Pro	Ser	Glu	Ser	Val	Phe	Ser	Arg	Glu	Ser	Ser	Gln	Ile	Thr	Thr
			20					25					30		
Gly	Ser	Leu	Leu	Ile	Met	His	His	Glu	Ala	Ser	Thr	His	Arg	Val	Ile
			35				40					45			
Pro	Thr	Leu	Val	Gln	Thr	Gly	Leu	His	Gly	Arg	His	Ile	Leu	Gly	Arg
			50			55					60				
His	Val	Phe	Gly	Ser	Ala	Ala	Asn	Leu	Phe	Ser	Cys	Ala	Ile	Asp	Gln
65					70					75				80	
Val	Phe	Pro	Asn	Glu	Gly	Cys	Leu	Pro	Tyr	Ser	Cys	Gln	Glu	Pro	Asn
			85						90					95	
Ser	Ser	Leu	Gln	Tyr	Gln	Ile	Gln	Ser	Val	Val	Arg	Met	Lys	Cys	Gly
			100					105					110		
Gly	Leu	Val	Thr	Glu	Glu	Ala	Val	Glu	Arg	Arg	Arg	Ala	Trp	Val	Ala
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Pro

<210> 5871

<211> 2217

<212> DNA

<213> Homo sapiens

<400> 5871

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 120  
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 180  
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 300

aaattggatt gggacattta ttttacttaa acagaagttt gcttatgaca cataatctag  
360  
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600  
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660  
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900  
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ggaaaaaaag acaaagatat ttcaaaaagaa aaagatacac aaaatcagaa tattactttg  
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<210> 5872

<211> 578

<212> PRT

<213> Homo sapiens

<400> 5872

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Glu	Ala	Ser	Pro	Val	Val	Val	Glu	Lys	Ser	Asn	Ser	Tyr	Pro	His	Gln
			20					25					30		
Leu	Tyr	Thr	Ser	Ser	Ser	His	His	Ser	His	Ser	Tyr	Ile	Gly	Leu	Pro
	35						40					45			
Tyr	Ala	Asp	His	Asn	Tyr	Gly	Ala	Arg	Pro	Pro	Pro	Thr	Pro	Pro	Ala
	50					55				60					
Ser	Pro	Pro	Pro	Ser	Val	Leu	Ile	Ser	Lys	Asn	Glu	Val	Gly	Ile	Phe
65					70				75					80	
Thr	Thr	Pro	Asn	Phe	Asp	Glu	Thr	Ser	Ser	Ala	Thr	Thr	Ile	Ser	Thr
			85					90					95		
Ser	Glu	Asp	Gly	Ser	Tyr	Gly	Thr	Asp	Val	Thr	Arg	Cys	Ile	Cys	Gly
			100					105					110		
Phe	Thr	His	Asp	Asp	Gly	Tyr	Met	Ile	Cys	Cys	Asp	Lys	Cys	Ser	Val
	115						120					125			
Trp	Gln	His	Ile	Asp	Cys	Met	Gly	Ile	Asp	Arg	Gln	His	Ile	Pro	Asp
	130					135					140				
Thr	Tyr	Leu	Cys	Glu	Arg	Cys	Gln	Pro	Arg	Asn	Leu	Asp	Lys	Glu	Arg
145					150					155				160	
Ala	Val	Leu	Leu	Gln	Arg	Arg	Lys	Arg	Glu	Asn	Met	Ser	Asp	Gly	Asp
				165					170					175	
Thr	Ser	Ala	Thr	Glu	Ser	Gly	Asp	Glu	Val	Pro	Val	Glu	Leu	Tyr	Thr
			180					185					190		
Ala	Phe	Gln	His	Thr	Pro	Thr	Ser	Ile	Thr	Leu	Thr	Ala	Ser	Arg	Val
	195						200					205			
Ser	Lys	Val	Asn	Asp	Lys	Arg	Arg	Lys	Lys	Ser	Gly	Glu	Lys	Glu	Gln
	210					215					220				
His	Ile	Ser	Lys	Cys	Lys	Lys	Ala	Phe	Arg	Glu	Gly	Ser	Arg	Lys	Ser
225					230					235				240	
Ser	Arg	Val	Lys	Gly	Ser	Ala	Pro	Glu	Ile	Asp	Pro	Ser	Ser	Asp	Gly
			245						250					255	
Ser	Asn	Phe	Gly	Trp	Glu	Thr	Lys	Ile	Lys	Ala	Trp	Met	Asp	Arg	Tyr
			260					265					270		
Glu	Glu	Ala	Asn	Asn	Asn	Gln	Tyr	Ser	Glu	Gly	Val	Gln	Arg	Glu	Ala
	275					280						285			
Gln	Arg	Ile	Ala	Leu	Arg	Leu	Gly	Asn	Gly	Asn	Asp	Lys	Lys	Glu	Met

290	295	300
Asn Lys Ser Asp Leu	Asn Thr Asn Asn Leu	Leu Phe Lys Pro Pro Val
305	310	315
Glu Ser His Ile Gln	Lys Asn Lys Lys Ile	Leu Lys Ser Ala Lys Asp
325	330	335
Leu Pro Pro Asp Ala	Leu Ile Ile Glu Tyr Arg	Gly Lys Phe Met Leu
340	345	350
Arg Glu Gln Phe Glu	Ala Asn Gly Tyr Phe Phe	Lys Arg Pro Tyr Pro
355	360	365
Phe Val Leu Phe Tyr	Ser Lys Phe His Gly Leu	Glu Met Cys Val Asp
370	375	380
Ala Arg Thr Phe Gly	Asn Glu Ala Arg Phe	Ile Arg Arg Ser Cys Thr
385	390	395
Pro Asn Ala Glu Val	Arg His Glu Ile Gln	Asp Gly Thr Ile His Leu
405	410	415
Tyr Ile Tyr Ser Ile	His Ser Ile Pro Lys	Gly Thr Glu Ile Thr Ile
420	425	430
Ala Phe Asp Phe Asp	Tyr Gly Asn Cys Lys Tyr	Lys Val Asp Cys Ala
435	440	445
Cys Leu Lys Glu Asn	Pro Glu Cys Pro Val	Leu Lys Arg Ser Ser Glu
450	455	460
Ser Met Glu Asn Ile	Asn Ser Gly Tyr Glu	Thr Arg Arg Lys Lys Gly
465	470	475
Lys Lys Asp Lys Asp	Ile Ser Lys Glu Lys	Asp Thr Gln Asn Gln Asn
485	490	495
Ile Thr Leu Asp Cys	Glu Gly Thr Thr Asn	Lys Met Lys Ser Pro Glu
500	505	510
Thr Lys Gln Arg Lys	Leu Ser Pro Leu Arg	Leu Ser Val Ser Asn Asn
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Gln Glu Pro Asp Phe	Ile Asp Asp Ile Glu	Glu Lys Thr Pro Ile Ser
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Asn Glu Val Glu Met	Glu Ser Glu Glu Gln	Ile Ala Glu Arg Lys Arg
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Lys Met Thr Arg Glu	Glu Arg Lys Met Glu	Ala Ile Leu Gln Ala Phe
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Ala Gly

&lt;210&gt; 5873

&lt;211&gt; 3463

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5873

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&lt;210&gt; 5874



&lt;211&gt; 341

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5874

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Gln Thr Trp Val Ser Glu Gly Tyr Phe Pro Asp Gly Val Tyr Cys Arg
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&lt;210&gt; 5875

&lt;211&gt; 5933

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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&lt;210&gt; 5876

&lt;211&gt; 1648

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5876

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			260				265					270			
Val	Glu	Tyr	Gly	Leu	Leu	Met	Pro	Ser	Pro	Ser	His	Leu	His	Cys	Val
	275					280					285				
Ala	Ala	Ile	Leu	Trp	His	Ser	Tyr	Glu	Leu	Leu	Val	Glu	Tyr	Asp	Leu
	290				295				300						
Pro	Ala	Leu	Leu	Asp	Gln	Glu	Leu	Phe	Glu	Leu	Leu	Phe	Asn	Trp	Ser
305					310				315						320
Met	Ser	Leu	Pro	Cys	Asn	Met	Val	Leu	Lys	Lys	Ala	Val	Asp	Ser	Leu
			325						330				335		
Leu	Cys	Ser	Met	Cys	His	Val	His	Pro	Asn	Tyr	Phe	Ser	Leu	Leu	Met
			340				345					350			
Gly	Trp	Met	Gly	Ile	Thr	Pro	Pro	Pro	Val	Gln	Cys	His	His	Arg	Leu
	355					360					365				
Ser	Met	Thr	Asp	Asp	Ser	Lys	Lys	Gln	Asp	Leu	Ser	Ser	Ser	Leu	Thr
	370					375				380					
Asp	Asp	Ser	Lys	Asn	Ala	Gln	Ala	Pro	Leu	Ala	Leu	Thr	Glu	Ser	His
385				390					395						400
Leu	Ala	Thr	Leu	Ala	Ser	Ser	Ser	Gln	Ser	Pro	Glu	Ala	Ile	Lys	Gln
			405					410					415		
Leu	Leu	Asp	Ser	Gly	Leu	Pro	Ser	Leu	Leu	Val	Arg	Ser	Leu	Ala	Ser
		420					425					430			
Phe	Cys	Phe	Ser	His	Ile	Ser	Ser	Ser	Glu	Ser	Ile	Ala	Gln	Ser	Ile
	435					440					445				
Asp	Ile	Ser	Gln	Asp	Lys	Leu	Arg	Arg	His	His	Val	Pro	Gln	Gln	Cys
	450				455				460						
Asn	Lys	Met	Pro	Ile	Thr	Ala	Asp	Leu	Val	Ala	Pro	Ile	Leu	Arg	Phe
465				470					475						480
Leu	Thr	Glu	Val	Gly	Asn	Ser	His	Ile	Met	Lys	Asp	Trp	Leu	Gly	Gly
			485					490					495		
Ser	Glu	Val	Asn	Pro	Leu	Trp	Thr	Ala	Leu	Leu	Phe	Leu	Leu	Cys	His



5049



930	935	940
Pro Ala His Ser Leu	Ala Ala Phe Gly Leu	Phe Leu Arg Leu Pro Gly
945	950	955
Tyr Ala Glu Val Leu	Leu Lys Glu Arg Lys	His Ala Gln Cys Leu Leu
965	970	975
Arg Leu Val Leu Gly	Val Thr Asp Asp Gly	Glu Gly Ser His Ile Leu
980	985	990
Gln Ser Pro Ser Ala	Asn Val Leu Pro Thr	Leu Pro Phe His Val Leu
995	1000	1005
Arg Ser Leu Phe Ser	Thr Thr Pro Leu Thr	Thr Thr Asp Asp Gly
1010	1015	1020
Leu Arg Arg Met Ala	Leu Glu Ile Gly Ala	Leu His Leu Ile Leu Val
1025	1030	1035
Cys Leu Ser Ala Leu	Ser His His Ser Pro	Arg Val Pro Asn Ser Ser
1045	1050	1055
Val Asn Gln Thr Glu	Pro Gln Val Ser Ser	Ser His Asn Pro Thr Ser
1060	1065	1070
Thr Glu Glu Gln Gln	Leu Tyr Trp Ala Lys	Gly Thr Gly Phe Gly Thr
1075	1080	1085
Gly Ser Thr Ala Ser	Gly Trp Asp Val Glu	Gln Ala Leu Thr Lys Gln
1090	1095	1100
Arg Leu Glu Glu Glu	His Val Thr Cys Leu	Leu Gln Val Leu Ala Ser
1105	1110	1115
Tyr Ile Asn Pro Val	Ser Ser Ala Val Asn	Gly Glu Ala Gln Ser Ser
1125	1130	1135
His Glu Thr Arg Gly	Gln Asn Ser Asn Ala	Leu Pro Ser Val Leu Leu
1140	1145	1150
Glu Leu Leu Ser Gln	Ser Cys Leu Ile Pro	Ala Met Ser Ser Tyr Leu
1155	1160	1165
Arg Asn Asp Ser Val	Leu Asp Met Ala Arg	His Val Pro Leu Tyr Arg
1170	1175	1180
Ala Leu Leu Glu Leu	Leu Arg Ala Ile Ala	Ser Cys Ala Ala Met Val
1185	1190	1195
Pro Leu Leu Leu Pro	Leu Ser Thr Glu Asn	Gly Glu Glu Glu Glu
1205	1210	1215
Gln Ser Glu Cys Gln	Thr Ser Val Gly Thr	Leu Leu Ala Lys Met Lys
1220	1225	1230
Thr Cys Val Asp Thr	Tyr Thr Asn Arg Leu	Arg Ser Lys Arg Glu Asn
1235	1240	1245
Val Lys Thr Gly Val	Lys Pro Asp Ala Ser	Asp Gln Glu Pro Glu Gly
1250	1255	1260
Leu Thr Leu Leu Val	Pro Asp Ile Gln Lys	Thr Ala Glu Ile Val Tyr
1265	1270	1275
Ala Ala Thr Thr Ser	Leu Arg Arg Ala Asn	Gln Glu Lys Lys Leu Gly
1285	1290	1295
Glu Tyr Ser Lys Lys	Ala Ala Met Lys Pro	Lys Pro Leu Ser Val Leu
1300	1305	1310
Lys Ser Leu Glu Glu	Lys Tyr Val Ala Val	Met Lys Lys Leu Gln Phe
1315	1320	1325
Asp Thr Phe Glu Met	Val Ser Glu Asp Glu	Asp Gly Lys Leu Gly Phe
1330	1335	1340
Lys Val Asn Tyr His	Tyr Met Ser Gln Val	Lys Asn Ala Asn Asp Ala
1345	1350	1355
Asn Ser Ala Ala Arg	Ala Arg Arg Leu Ala	Gln Glu Ala Val Thr Leu

1365 1370 1375  
 Ser Thr Ser Leu Pro Leu Ser Ser Ser Ser Val Phe Val Arg Cys  
 1380 1385 1390  
 Asp Glu Glu Arg Leu Asp Ile Met Lys Val Leu Ile Thr Gly Pro Ala  
 1395 1400 1405  
 Asp Thr Pro Tyr Ala Asn Gly Cys Phe Glu Phe Asp Val Tyr Phe Pro  
 1410 1415 1420  
 Gln Asp Tyr Pro Ser Ser Pro Pro Leu Val Asn Leu Glu Thr Thr Gly  
 1425 1430 1435 1440  
 Gly His Ser Val Arg Phe Asn Pro Asn Leu Tyr Asn Asp Gly Lys Val  
 1445 1450 1455  
 Cys Leu Ser Ile Leu Asn Thr Trp His Gly Arg Pro Glu Glu Lys Trp  
 1460 1465 1470  
 Asn Pro Gln Thr Ser Ser Phe Leu Gln Val Leu Val Ser Val Gln Ser  
 1475 1480 1485  
 Leu Ile Leu Val Ala Glu Pro Tyr Phe Asn Glu Pro Gly Tyr Glu Arg  
 1490 1495 1500  
 Ser Arg Gly Thr Pro Ser Gly Thr Gln Ser Ser Arg Glu Tyr Asp Gly  
 1505 1510 1515 1520  
 Asn Ile Arg Gln Ala Thr Val Lys Trp Ala Met Leu Glu Gln Ile Arg  
 1525 1530 1535  
 Asn Pro Ser Pro Cys Phe Lys Glu Val Ile His Lys His Phe Tyr Leu  
 1540 1545 1550  
 Lys Arg Val Glu Ile Met Ala Gln Cys Glu Glu Trp Ile Ala Asp Ile  
 1555 1560 1565  
 Gln Gln Tyr Ser Ser Asp Lys Arg Val Gly Arg Thr Met Ser His His  
 1570 1575 1580  
 Ala Ala Ala Leu Lys Arg His Thr Ala Gln Leu Arg Glu Glu Leu Leu  
 1585 1590 1595 1600  
 Lys Leu Pro Cys Pro Glu Gly Leu Asp Pro Asp Thr Asp Asp Ala Pro  
 1605 1610 1615  
 Glu Val Cys Arg Ala Thr Thr Gly Ala Glu Glu Thr Leu Met His Asp  
 1620 1625 1630  
 Gln Val Lys Pro Ser Ser Ser Lys Glu Leu Pro Ser Asp Phe Gln Leu  
 1635 1640 1645

&lt;210&gt; 5877

&lt;211&gt; 683

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5877

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ggcagcatga ggtcagtggg gggcttcttg tcccagcggg gcttgcattg ggacccctg  
 120

ctactcagg actttcagag gagacgctg cggggctgca gaaacctcta caagaaggac  
 180

ctctcggcc acttcggctg tgtcaatgcc attgaattct ccaacaatgg aggccagtgg  
 240

ctggtctcag gaggagatga ccgccgggt ctgctatggc acatggaaca agccatccac  
 300

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<210> 5878
<211> 227
<212> PRT
<213> Homo sapiens
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<210> 5879
<211> 1555
<212> DNA
<213> Homo sapiens
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&lt;400&gt; 5879

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120  
tccatttggg gtgctgggga acgttattcc cagagaggtg cctcagtgga ggcgctgtgt  
180  
ctcctacgca acttctgagg gctggagggt gccaaaggga gctgctgacc gcctggtgct  
240  
tcaggagctg ggtgctgggg aagccacatg cactgcggcg tccagaggca gaagcacaac  
300  
caacaagaac cacgaaggag gcgcctttcc tcctataatg cctgtttggt gccctctact  
360  
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420  
gtcaataaat ccataaccag caatactatg gggcctgggg tgcgctggcc tttagtgagt  
480  
ggagtggggc gaaggatgct gcatgtcctg cagtgggcac agcggccctg cacgggggag  
540  
aaccatccct gtaaagtgtc agtagtagcc cctgtgtcag tcagggtccc tgcaagaaat  
600  
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660  
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720  
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900  
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960  
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1020  
aattgggcag catctcctcc accaatatct gagtgaggcc agggttggac acggcagggg  
1080  
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1200  
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1380  
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1440  
actgccctct ggggccactg ccgcacccag gcgatggatg cccctgatac gccattcca  
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1555

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<210> 5882
<211> 109
<212> PRT
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<213> Homo sapiens

<400> 5882

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 1           5           10          15
Lys Arg Ala Ser Val Asp Val Asp Leu Leu Ala Pro Arg Ser Pro Met
          20          25          30
Ala Lys Glu Asn Met Val Thr Phe Ser His Thr Leu Pro Arg Ala Ser
          35          40          45
Ala Pro Ser Leu Asp Asp Pro Ala Arg Arg His Met Thr Ile His Val
          50          55          60
Pro Leu Asp Ala Ser Arg Ser Lys Gln Leu Ile Ser Glu Trp Lys Gln
65          70          75          80
Lys Ser Leu Glu Gly Arg Gly Leu Gly Leu Pro Asp Asp Ala Ser Pro
          85          90          95
Gly His Leu Arg Ala Pro Ala Glu Pro Met Pro Glu Xaa
          100          105

```

<210> 5883

<211> 579

<212> DNA

<213> Homo sapiens

<400> 5883

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120
agaggagggg caggaccaga tcttttgaga gctgagggtt gagggcattg agccaacaca
180
cagatttgtc gcctctgtcc ccgaagacac ctgcaccctc catgcggagc caagatgggg
240
aatggaactg aggaagatta taactttgtc ttcaagggtg tgctgatcgg cgaatcaggt
300
gtggggaaga ccaatctact ttcccgatcc acgcgcaatg agttcagcca cgacagccgc
360
accaccatcg gggttgagtt ctccaccgc actgtgatgt tgggcaccgc tgctgtcaag
420
gctcagatct gggacacagc tgggtgttga cctaaccaag caccagacct atgctgtggt
480
ggagcgatgg ctgaaggagc tctatgacca tgctgaagcc acgacgctcg tcatgctcgt
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579

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<210> 5884

<211> 71

<212> PRT

<213> Homo sapiens

<400> 5884

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Met Gly Asn Gly Thr Glu Glu Asp Tyr Asn Phe Val Phe Lys Val Val
 1           5           10          15
Leu Ile Gly Glu Ser Gly Val Gly Lys Thr Asn Leu Leu Ser Arg Phe

```

		20						25					30				
Thr	Arg	Asn	Glu	Phe	Ser	His	Asp	Ser	Arg	Thr	Thr	Ile	Gly	Val	Glu		
		35						40					45				
Phe	Ser	Thr	Arg	Thr	Val	Met	Leu	Gly	Thr	Ala	Ala	Val	Lys	Ala	Gln		
		50					55					60					
Ile	Trp	Asp	Thr	Ala	Gly	Val											
65						70											

&lt;210&gt; 5885

&lt;211&gt; 1905

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5885

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cgtgtccttt gcagacactt tctggggcga ggtgacatgg cgagagtctt ggatcgggtg
120
acgtagacgg tagacagttc gcgtgcgttt ccttcgccta cttggcctac atgccttctg
180
cccgtgaagc gatgtttccc ctcgaaaggc cgtagacgcc gtcagaatcg gtttttcagt
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420
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480
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540
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600
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gcgtatgtga ttcagcggta ccgggaggtg cacgacatgc ttcacacctt gctggggatg
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1140
cctggcctac ctcccccatc ccctgcttcc cttggaggca gagggtccc ttgactacct
1200

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 1620  
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 1905

&lt;210&gt; 5886

&lt;211&gt; 265

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5886

Met	Ala	Thr	Leu	Leu	Arg	Pro	Val	Leu	Arg	Arg	Leu	Cys	Gly	Leu	Pro
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Gly	Leu	Gln	Arg	Pro	Ala	Ala	Glu	Met	Pro	Leu	Arg	Ala	Arg	Ser	Asp
			20					25					30		
Gly	Ala	Gly	Pro	Leu	Tyr	Ser	His	His	Leu	Pro	Thr	Ser	Pro	Leu	Gln
		35					40					45			
Lys	Ala	Leu	Leu	Ala	Ala	Gly	Ser	Ala	Ala	Met	Ala	Leu	Tyr	Asn	Pro
	50					55				60					
Tyr	Arg	His	Asp	Met	Val	Ala	Val	Leu	Gly	Glu	Thr	Thr	Gly	His	Arg
65					70					75				80	
Thr	Leu	Lys	Val	Leu	Arg	Asp	Gln	Met	Arg	Arg	Asp	Pro	Glu	Gly	Ala
			85					90					95		
Gln	Ile	Leu	Gln	Glu	Arg	Pro	Arg	Ile	Ser	Thr	Ser	Thr	Leu	Asp	Leu
		100						105					110		
Gly	Lys	Leu	Gln	Ser	Leu	Pro	Glu	Gly	Ser	Leu	Gly	Arg	Glu	Tyr	Leu
	115					120						125			
Arg	Phe	Leu	Asp	Val	Asn	Arg	Val	Ser	Pro	Asp	Thr	Arg	Ala	Pro	Thr
	130					135					140				
Arg	Phe	Val	Asp	Asp	Glu	Leu	Ala	Tyr	Val	Ile	Gln	Arg	Tyr	Arg	
145					150				155					160	
Glu	Val	His	Asp	Met	Leu	His	Thr	Leu	Leu	Gly	Met	Pro	Thr	Asn	Ile
			165					170					175		
Leu	Gly	Glu	Ile	Val	Val	Lys	Trp	Phe	Glu	Ala	Val	Gln	Thr	Gly	Leu

			180					185					190			
Pro	Met	Cys	Ile	Leu	Gly	Ala	Phe	Phe	Gly	Pro	Ile	Arg	Leu	Gly	Ala	
		195					200					205				
Gln	Ser	Leu	Gln	Val	Leu	Val	Ser	Glu	Leu	Ile	Pro	Trp	Ala	Val	Gln	
	210					215					220					
Asn	Gly	Arg	Arg	Ala	Pro	Cys	Val	Leu	Asn	Leu	Tyr	Tyr	Glu	Arg	Arg	
225					230					235					240	
Trp	Glu	Gln	Ser	Leu	Arg	Ala	Leu	Arg	Glu	Glu	Leu	Gly	Ile	Thr	Ala	
			245						250					255		
Pro	Pro	Met	His	Val	Gln	Gly	Leu	Ala								
			260					265								

<210> 5887

<211> 3779

<212> DNA

<213> Homo sapiens

<400> 5887

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aaccaactgg 180	gacttgattg	gtcgaaaaga	agtgcctaaa	cagcaagctg	cttaccgcaa
tctcggtcag 240	aatttggtgg	ggccccacag	atatgggtgc	ctggcggggg	tccgggtgcy
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&lt;210&gt; 5888

&lt;211&gt; 166

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5888

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Pro	Glu	Tyr	Met	Trp	Phe	Leu	Leu	Tyr	Cys	Glu	Gly	Thr	Arg	Phe	Thr
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Ala	Val	Lys	Cys	Leu	Arg	Gly	Thr	Val	Ala	Ala	Val	Tyr	Asp	Val	Thr

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				115				120				125				
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<210> 5889

<211> 2198

<212> DNA

<213> Homo sapiens

<400> 5889

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&lt;210&gt; 5890

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5890

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			20					25					30		
Glu	Cys	Ser	Gly	Thr	Ile	Thr	Ala	His	Cys	Ser	Leu	Asp	Phe	Pro	Gly
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			85				90						95		
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Pro	Ala	Phe	His	His	Leu										
		115													

&lt;210&gt; 5891

&lt;211&gt; 1459

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5891

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<210> 5892

<211> 212

<212> PRT

<213> Homo sapiens

<400> 5892

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Phe	Arg	Asn	Gly	Ala	Val	Tyr	Gly	Ala	Lys	Ile	Arg	Ala	Pro	His	Ala	35	40	45	
Leu	Val	Met	Thr	Phe	Leu	Phe	Arg	Asn	Gly	Ser	Leu	Gln	Glu	Lys	Leu	50	55	60	
Trp	Ala	Ile	Leu	Gln	Ala	Thr	Tyr	Ile	His	Ser	Trp	Asn	Leu	Ala	Arg	65	70	75	80
Phe	Val	Phe	Thr	Tyr	Lys	Gly	Leu	Arg	Ala	Leu	Gln	Ser	Tyr	Ile	Gln	85	90	95	
Gly	Lys	Thr	Tyr	Pro	Ala	His	Ala	Phe	Leu	Ala	Ala	Phe	Leu	Gly	Gly	100	105	110	
Ile	Leu	Val	Phe	Gly	Glu	Asn	Asn	Asn	Ile	Asn	Ser	Gln	Ile	Asn	Met	115	120	125	
Tyr	Leu	Leu	Ser	Arg	Val	Leu	Phe	Ala	Leu	Ser	Arg	Leu	Ala	Val	Glu	130	135	140	
Lys	Gly	Tyr	Ile	Pro	Glu	Pro	Arg	Trp	Asp	Pro	Phe	Pro	Leu	Leu	Thr	145	150	155	160
Ala	Val	Val	Trp	Gly	Leu	Val	Leu	Trp	Leu	Phe	Glu	Tyr	His	Arg	Ser	165	170	175	
Thr	Leu	Gln	Pro	Ser	Leu	Gln	Ser	Ser	Met	Thr	Tyr	Leu	Tyr	Glu	Asp	180	185	190	
Ser	Asn	Val	Trp	His	Asp	Ile	Ser	Asp	Phe	Leu	Val	Tyr	Asn	Lys	Ser	195	200	205	
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<210> 5893

<211> 1389

<212> DNA

<213> Homo sapiens

<400> 5893

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&lt;210&gt; 5894

&lt;211&gt; 260

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5894

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Thr Asp Arg Pro Gly Phe His Asp Glu Ser Ala Ile Tyr Pro Val Gly			
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Tyr Cys Ser Thr Arg Ile Tyr Ala Ser Met Lys Cys Pro Asp Gln Lys			
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Cys Leu Tyr Thr Cys Gln Ile Lys Asp Gly Gly Val Gln Pro Gln Phe			
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Glu Ile Val Pro Glu Asp Asp Pro Gln Asn Ala Ile Val Ser Ser Ser			
100	105	110	
Ala Asp Ala Cys His Ala Glu Leu Leu Arg Thr Ile Ser Thr Thr Met			
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Gly Lys Leu Met Pro Asn Leu Leu Pro Ala Gly Ala Asp Phe Phe Gly			
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Arg Lys Cys Ile Asn Tyr Gln Trp Val Lys Phe Asp Val Cys Lys Pro			
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Gly Asp Gly Gln Leu Pro Glu Gly Leu Pro Glu Asn Asp Ala Ala Met			
180	185	190	
Ser Phe Glu Ala Phe Gln Arg Gln Ile Phe Asp Glu Asp Gln Asn Asp			
195	200	205	
Pro Leu Leu Pro Gly Ser Leu Asp Leu Pro Glu Leu Gln Pro Ala Ala			
210	215	220	
Phe Val Ser Ser Tyr Gln Pro Met Tyr Leu Thr His Glu Pro Leu Val			
225	230	235	240
Asp Thr His Leu Gln His Leu Lys Ser Pro Ser Gln Gly Ser Pro Ile			
245	250	255	
Gln Ser Ser Asp			
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&lt;210&gt; 5895

&lt;211&gt; 2748

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5895

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<210> 5896

<211> 261

<212> PRT

<213> Homo sapiens

<400> 5896

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			20					25					30		
Arg	Asp	Leu	Gly	Gly	Ser	Ser	Ala	Ala	Thr	Glu	Ala	Val	Ala	Ile	Leu
		35					40					45			
Thr	Ala	Thr	Tyr	Pro	Val	Gly	His	Met	Pro	Tyr	Gly	Trp	Leu	Thr	Glu
	50					55					60				
Ile	Arg	Ala	Val	Tyr	Pro	Ala	Phe	Asp	Lys	Asn	Asn	Pro	Ser	Asn	Lys
65					70				75					80	
Leu	Val	Ser	Thr	Ser	Asn	Thr	Val	Thr	Ala	Ala	His	Ile	Lys	Lys	Phe
			85					90					95		
Thr	Phe	Val	Cys	Met	Ala	Leu	Ser	Leu	Thr	Leu	Cys	Phe	Val	Met	Phe
		100						105				110			
Trp	Thr	Pro	Asn	Val	Ser	Glu	Lys	Ile	Leu	Ile	Asp	Ile	Ile	Gly	Val
	115					120					125				
Asp	Phe	Ala	Phe	Ala	Glu	Leu	Cys	Val	Val	Pro	Leu	Arg	Ile	Phe	Ser
	130					135					140				
Phe	Phe	Pro	Val	Pro	Val	Thr	Val	Arg	Ala	His	Leu	Thr	Gly	Trp	Leu
145					150				155					160	
Met	Thr	Leu	Lys	Lys	Thr	Phe	Val	Leu	Ala	Pro	Ser	Ser	Val	Leu	Arg
			165					170						175	
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720
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&lt;210&gt; 5898

&lt;211&gt; 242

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5898

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			20					25					30		
Glu	Ile	Cys	Ala	Asp	Glu	Phe	Pro	Gly	Ser	Ser	Ala	Thr	Tyr	Arg	Ile
		35					40					45			
Leu	Glu	Val	Gly	Cys	Gly	Val	Gly	Asn	Thr	Val	Phe	Pro	Ile	Leu	Gln
	50				55						60				
Thr	Asn	Asn	Asp	Pro	Gly	Leu	Phe	Val	Tyr	Cys	Cys	Asp	Phe	Ser	Ser
65				70					75					80	
Thr	Ala	Ile	Glu	Leu	Val	Gln	Thr	Asn	Ser	Glu	Tyr	Asp	Pro	Ser	Arg
				85				90						95	
Cys	Phe	Ala	Phe	Val	His	Asp	Leu	Cys	Asp	Glu	Glu	Lys	Ser	Tyr	Pro
		100					105					110			
Val	Pro	Lys	Gly	Ser	Leu	Asp	Ile	Ile	Ile	Leu	Ile	Phe	Val	Leu	Ser
		115				120						125			
Ala	Ile	Val	Pro	Asp	Lys	Met	Gln	Lys	Ala	Ile	Asn	Arg	Leu	Ser	Arg



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	165	170
Phe Tyr Val Arg Gly Asp Gly Thr Arg Val Tyr Phe Phe Thr Gln Glu		175
	180	185
Glu Leu Asp Thr Leu Phe Thr Thr Ala Gly Leu Glu Lys Val Gln Asn		190
	195	200
Leu Val Asp Arg Arg Leu Gln Val Asn Arg Gly Lys Gln Leu Thr Met		205
	210	215
Tyr Arg Val Trp Ile Gln Cys Lys Tyr Cys Lys Pro Leu Leu Ser Ser		220
225	230	235
Thr Ser		240

&lt;210&gt; 5899

&lt;211&gt; 1589

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5899

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<210> 5900

<211> 345

<212> PRT

<213> Homo sapiens

<400> 5900

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			20					25					30		
Ile	Pro	Thr	Ile	Ile	Arg	Asp	Glu	Glu	Leu	Lys	Thr	Arg	Gly	Phe	Gly
		35					40					45			
Gly	Ile	Tyr	Gly	Val	Gly	Lys	Ala	Ala	Leu	His	Pro	Pro	Ala	Leu	Ala
	50					55					60				
Val	Leu	Ser	His	Thr	Pro	Asp	Gly	Ala	Thr	Gln	Thr	Ile	Ala	Trp	Val
65					70					75				80	
Gly	Lys	Gly	Ile	Val	Tyr	Asp	Thr	Gly	Gly	Leu	Ser	Ile	Lys	Gly	Lys
			85						90					95	
Thr	Thr	Met	Pro	Gly	Met	Lys	Arg	Asp	Cys	Gly	Gly	Ala	Ala	Ala	Val
			100					105					110		
Leu	Gly	Ala	Phe	Arg	Ala	Ala	Ile	Lys	Gln	Gly	Phe	Lys	Asp	Asn	Leu
		115					120					125			
His	Ala	Val	Phe	Cys	Leu	Ala	Glu	Asn	Ser	Val	Gly	Pro	Asn	Ala	Thr
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Arg	Pro	Asp	Asp	Ile	His	Leu	Leu	Tyr	Ser	Gly	Lys	Thr	Val	Glu	Ile
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Asn	Asn	Thr	Asp	Ala	Glu	Gly	Arg	Leu	Val	Leu	Ala	Asp	Gly	Val	Ser
			165					170				175			
Tyr	Ala	Cys	Lys	Asp	Leu	Gly	Ala	Asp	Ile	Ile	Leu	Asp	Met	Ala	Thr
		180					185					190			
Leu	Thr	Gly	Ala	Gln	Gly	Ile	Ala	Thr	Gly	Lys	Tyr	His	Ala	Ala	Val

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210	215	220
Lys Cys Gly Asp Leu Val His Pro Leu Val Tyr Cys Pro Glu Leu His		
225	230	235
Phe Ser Glu Phe Thr Ser Ala Val Ala Asp Met Lys Asn Ser Val Ala		
245	250	255
Asp Arg Asp Asn Ser Pro Ser Ser Cys Ala Gly Leu Phe Ile Ala Ser		
260	265	270
His Ile Gly Phe Asp Trp Pro Gly Val Trp Val His Leu Asp Ile Ala		
275	280	285
Ala Pro Val His Ala Gly Glu Arg Ala Thr Gly Phe Gly Val Ala Leu		
290	295	300
Leu Leu Ala Leu Phe Gly Arg Ala Ser Glu Asp Pro Leu Leu Asn Leu		
305	310	315
Val Ser Pro Leu Gly Cys Glu Val Asp Val Glu Glu Gly Asp Leu Gly		
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Arg Asp Ser Lys Arg Arg Arg Leu Val		
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&lt;210&gt; 5901

&lt;211&gt; 984

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5901

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840

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<210> 5902

<211> 328

<212> PRT

<213> Homo sapiens

<400> 5902

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			20					25					30		
Glu	Ile	Glu	Ala	Lys	Leu	Asp	Lys	Leu	Val	Lys	Leu	Cys	Ser	Gly	Met
		35					40					45			
Val	Glu	Ala	Gly	Lys	Ala	Tyr	Val	Ser	Thr	Ser	Arg	Leu	Phe	Val	Ser
	50					55					60				
Gly	Val	Arg	Asp	Leu	Ser	Gln	Gln	Cys	Gln	Gly	Asp	Thr	Val	Ile	Ser
65					70					75				80	
Glu	Cys	Leu	Gln	Arg	Phe	Ala	Asp	Ser	Leu	Gln	Glu	Val	Val	Asn	Tyr
				85					90					95	
His	Met	Ile	Leu	Phe	Asp	Gln	Ala	Gln	Arg	Ser	Val	Arg	Gln	Gln	Leu
			100					105					110		
Gln	Ser	Phe	Val	Lys	Glu	Asp	Val	Arg	Lys	Phe	Lys	Glu	Thr	Lys	Lys
		115					120					125			
Gln	Phe	Asp	Lys	Val	Arg	Glu	Asp	Leu	Glu	Leu	Ser	Leu	Val	Arg	Asn
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Ala	Gln	Ala	Pro	Arg	His	Arg	Pro	His	Glu	Val	Glu	Glu	Ala	Thr	Gly
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Ala	Leu	Thr	Leu	Thr	Arg	Lys	Cys	Phe	Arg	His	Leu	Ala	Leu	Asp	Tyr
				165					170					175	
Val	Leu	Gln	Ile	Asn	Val	Leu	Gln	Ala	Lys	Lys	Lys	Phe	Glu	Ile	Leu
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Asp	Ser	Met	Leu	Ser	Phe	Met	His	Ala	Gln	Ser	Ser	Phe	Phe	Gln	Gln
	195						200					205			
Gly	Tyr	Ser	Leu	Leu	His	Gln	Leu	Asp	Pro	Tyr	Met	Lys	Lys	Leu	Ala
	210					215					220				
Ala	Glu	Leu	Asp	Gln	Leu	Val	Ile	Asp	Ser	Ala	Val	Glu	Lys	Arg	Glu
225					230					235				240	
Met	Glu	Arg	Lys	His	Ala	Ala	Ile	Gln	Gln	Arg	Thr	Leu	Arg	Asp	Phe
				245					250					255	
Ser	Tyr	Asp	Glu	Ser	Lys	Val	Glu	Phe	Asp	Val	Asp	Ala	Pro	Ser	Gly
		260						265					270		
Val	Val	Met	Glu	Gly	Tyr	Leu	Phe	Lys	Arg	Ala	Ser	Asn	Xaa	Phe	Lys
		275					280					285			
Thr	Trp	Asn	Arg	Arg	Trp	Phe	Ser	Ile	Gln	Asn	Ser	Gln	Leu	Val	Tyr
	290					295					300				
Gln	Lys	Lys	Leu	Lys	Asp	Ala	Leu	Thr	Val	Val	Val	Asp	Asp	Leu	Arg
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Leu	Cys	Ser	Val	Lys	Pro	Cys	Glu								

325

&lt;210&gt; 5903

&lt;211&gt; 3734

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5903

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<211> 308

<212> PRT

<213> Homo sapiens

<400> 5904

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Lys	His	Leu	Trp	Lys	Pro	Ala	Val	Glu	Val	Tyr	Gln	Gln	Phe	Phe	Ser



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&lt;210&gt; 5905

&lt;211&gt; 2280

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5905

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&lt;210&gt; 5906

&lt;211&gt; 215

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5906

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 Gly Leu Val Leu Glu Trp Ile Lys Asn Asn Gly Gly Ala Ala Ala Met  
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 Glu Lys Leu Ser Ser Ile Lys Ser Leu Thr Ile Tyr Glu Ile Ile Asp  
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&lt;210&gt; 5907

&lt;211&gt; 1989

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5907

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&lt;210&gt; 5908

&lt;211&gt; 454

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5908

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305          310          315          320
Gln Glu Thr Val Ser Ser Glu Leu Lys Lys Pro Leu Gly Pro Ala Ser
          325          330          335
Phe Asn Leu Ser Glu Tyr Phe Arg Gln Phe Leu Leu Pro Gln Asn Glu
          340          345          350
Cys Glu Leu His Asp Phe Arg Leu Ser Phe Ser Gln Leu Lys Trp Asp
          355          360          365
Asn Trp Ile Val Ala Pro His Arg Tyr Asn Pro Arg Tyr Cys Lys Gly
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Asp Cys Pro Arg Ala Val Gly His Arg Tyr Gly Ser Pro Val His Thr
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&lt;210&gt; 5909

&lt;211&gt; 4343

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5909

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&lt;210&gt; 5910

&lt;211&gt; 899

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5910

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Gly Ser Phe Gly Ala Val Tyr Phe Ala Thr Asn Ala His Thr Ser Glu
      35           40           45
Val Val Ala Ile Lys Lys Met Ser Tyr Ser Gly Lys Gln Thr His Glu
      50           55           60
Lys Trp Gln Asp Ile Leu Lys Glu Val Lys Phe Leu Arg Gln Leu Lys
65           70           75           80
His Pro Asn Thr Ile Glu Tyr Lys Gly Cys Tyr Leu Lys Glu His Thr
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Ala Trp Leu Val Met Glu Tyr Cys Leu Gly Ser Ala Ser Asp Leu Leu
      100          105          110
Glu Val His Lys Lys Pro Leu Gln Glu Val Glu Ile Ala Ala Ile Thr
      115          120          125
His Gly Ala Leu His Gly Leu Ala Tyr Leu His Ser His Ala Leu Ile
      130          135          140
His Arg Asp Ile Lys Ala Gly Asn Ile Leu Leu Thr Glu Pro Gly Gln
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Val Lys Leu Ala Asp Phe Gly Ser Ala Ser Met Ala Ser Pro Ala Asn
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Ser Phe Val Gly Thr Pro Tyr Trp Met Ala Pro Glu Val Ile Leu Ala
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Met Asp Glu Gly Gln Tyr Asp Gly Lys Val Asp Ile Trp Ser Leu Gly
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Ile Thr Cys Ile Glu Leu Ala Glu Arg Lys Pro Pro Leu Phe Asn Met
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Asn Ala Met Ser Ala Leu Tyr His Ile Ala Gln Asn Asp Ser Pro Thr
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Leu Gln Ser Asn Glu Trp Thr Asp Ser Phe Arg Arg Phe Val Asp Tyr
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Cys Leu Gln Lys Ile Pro Gln Glu Arg Pro Thr Ser Ala Glu Leu Leu
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Arg His Asp Phe Val Arg Arg Asp Arg Pro Leu Arg Val Leu Ile Asp
      275          280          285
Leu Ile Gln Arg Thr Lys Asp Ala Val Arg Glu Leu Asp Asn Leu Gln
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Tyr Arg Lys Met Lys Lys Ile Leu Phe Gln Glu Thr Arg Asn Gly Pro
305          310          315          320
Leu Asn Glu Ser Gln Glu Asp Glu Glu Asp Ser Glu His Gly Thr Ser
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Leu Asn Arg Glu Met Asp Ser Leu Gly Ser Asn His Ser Ile Pro Ser
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Met Ser Val Ser Thr Gly Ser Gln Ser Ser Ser Val Asn Ser Met Gln
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Glu Val Met Asp Glu Ser Ser Ser Glu Leu Val Met Met His Asp Asp
      370          375          380
Glu Ser Thr Ile Asn Ser Ser Ser Ser Val Val His Lys Lys Asp His

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Val Phe Ile Arg Asp Glu Ala Gly His Gly Asp Pro Arg Pro Glu Pro
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Arg Pro Thr Gln Ser Val Gln Ser Gln Ala Leu His Tyr Arg Asn Arg
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Glu Arg Phe Ala Thr Ile Lys Ser Ala Ser Leu Val Thr Arg Gln Ile
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His Glu His Glu Gln Glu Asn Glu Leu Arg Glu Gln Met Ser Gly Tyr
          450          455          460
Lys Arg Met Arg Arg Gln His Gln Lys Gln Leu Ile Ala Leu Glu Asn
465          470          475          480
Lys Leu Lys Ala Glu Met Asp Glu His Arg Leu Lys Leu Gln Lys Glu
          485          490          495
Val Glu Thr His Ala Asn Asn Ser Ser Ile Glu Leu Glu Lys Leu Ala
          500          505          510
Lys Lys Gln Val Ala Ile Ile Glu Lys Glu Ala Lys Val Ala Ala Ala
          515          520          525
Asp Glu Lys Lys Phe Gln Gln Gln Ile Leu Ala Gln Gln Lys Lys Asp
530          535          540
Leu Thr Thr Phe Leu Glu Ser Gln Lys Lys Gln Tyr Lys Ile Cys Lys
545          550          555          560
Glu Lys Ile Lys Glu Glu Met Asn Glu Asp His Ser Thr Pro Lys Lys
          565          570          575
Glu Lys Gln Glu Arg Ile Phe Lys His Lys Glu Asn Leu Gln His Thr
          580          585          590
Gln Ala Glu Glu Glu Ala His Leu Leu Thr Ser Thr Gly Asp Trp Thr
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Thr Thr Lys Asn Cys Arg Phe Phe Lys Arg Lys Ile Met Ile Lys Arg
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His Glu Val Glu Gln Gln Asn Ile Arg Glu Glu Leu Asn Lys Lys Arg
625          630          635          640
Thr Met Lys Glu Met Glu His Ala Met Leu Ile Arg His Asp Glu Ser
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Thr Arg Glu Leu Glu Tyr Arg Gln Leu His Thr Leu Gln Lys Leu Arg
          660          665          670
Met Asp Leu Ile Arg Leu Gln His Gln Thr Glu Leu Glu Asn Gln Leu
          675          680          685
Glu Tyr Asn Lys Arg Arg Glu Arg Glu Leu His Arg Lys His Val Met
690          695          700
Glu Leu Arg Gln Gln Pro Lys Asn Leu Lys Ala Met Glu Met Gln Ile
705          710          715          720
Lys Lys Gln Phe Gln Asp Thr Cys Lys Val Gln Thr Lys Gln Tyr Lys
          725          730          735
Ala Leu Lys Asn His Gln Leu Glu Val Thr Pro Lys Asn Glu His Lys
          740          745          750
Thr Ile Leu Lys Thr Leu Lys Asp Glu Gln Thr Arg Lys Leu Ala Ile
          755          760          765
Leu Ala Glu Gln Tyr Glu Gln Ser Ile Asn Glu Met Met Ala Ser Gln
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Ala Leu Arg Leu Asp Glu Ala Gln Glu Ala Glu Cys Gln Ala Leu Arg
785          790          795          800
Leu Gln Leu Gln Gln Glu Met Glu Leu Leu Asn Ala Tyr Gln Ser Lys
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Asp Tyr Arg

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 <212> DNA  
 <213> Homo sapiens

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<210> 5912  
 <211> 211  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Ala Ser Ser Ser Ser Leu Leu Asn Arg Leu Gln Leu Asp Asp Asp Ile

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Asp Gly Glu Thr Arg Asp Leu Phe Val Ile Val Asp Asp Pro Lys Lys
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His Val Cys Thr Met Glu Thr Tyr Ile Thr Tyr Arg Ile Thr Thr Lys
      85              90              95
Ser Thr Arg Val Glu Phe Asp Leu Pro Glu Tyr Ser Val Arg Arg Arg
      100              105              110
Tyr Gln Asp Phe Asp Trp Leu Arg Ser Lys Leu Glu Glu Ser Gln Pro
      115              120              125
Thr His Leu Ile Pro Pro Leu Pro Glu Lys Phe Val Val Lys Gly Val
      130              135              140
Val Asp Arg Phe Ser Glu Glu Phe Val Glu Thr Arg Arg Lys Ala Leu
145              150              155              160
Asp Lys Phe Leu Lys Arg Ile Thr Asp His Pro Val Leu Ser Phe Asn
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Glu His Phe Asn Ile Phe Leu Thr Ala Lys Asp Leu Asn Ala Tyr Lys
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&lt;210&gt; 5913

&lt;211&gt; 2495

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5913

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 <212> PRT  
 <213> Homo sapiens

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 Gly Gln Gly Phe Asp Arg His Leu Phe Ala Leu Arg His Leu Ala Ala  
 50 55 60  
 Ala Xaa Gly Ile Ile Leu Pro Glu Leu Tyr Leu Asp Pro Ala Tyr Gly  
 65 70 75 80  
 Gln Ile Asn His Asn Val Leu Ser Thr Ser Thr Leu Ser Ser Pro Ala  
 85 90 95  
 Val Asn Xaa Cys Arg Phe Ala Pro Val Val Ser Asp Ala Phe Gly Val  
 100 105 110  
 Gly Tyr Ala Val His Asp Asn Trp Ile Gly Cys Asn Val Ser Ser Tyr  
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 Ser Cys Glu Ile Ala Val Thr Arg Lys Val Val Gln Val Tyr Arg Lys  
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 Ser Lys Glu Ala Ser Ser Glu Ser Ser Gly His Lys Arg Ser Ser Ser  
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 Trp Gly Arg Thr Tyr Ser Phe Thr Ser Ala Met Ser Arg Gly Cys Val  
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&lt;211&gt; 1320

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5919

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&lt;210&gt; 5922

&lt;211&gt; 1252

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5922

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Lys	Ser	Val	Ile	Ile	Trp	Thr	Ser	Lys	Leu	Glu	Gly	Ile	Leu	Lys	Tyr
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Thr	His	Asn	Asp	Ala	Ile	Gln	Cys	Val	Ser	Tyr	Asn	Pro	Ile	Thr	His
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Gln	Leu	Ala	Ser	Cys	Ser	Ser	Ser	Asp	Phe	Gly	Leu	Trp	Ser	Pro	Glu
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Gln	Lys	Ser	Val	Ser	Lys	His	Lys	Ser	Ser	Ser	Lys	Ile	Ile	Cys	Cys
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Glu	Asp	Val	Ile	Val	Asn	Arg	Tyr	Ile	Gln	Glu	Ile	Pro	Ser	Thr	Leu
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Pro Cys Cys Ile Ser Tyr	Phe Thr Lys Gly Glu Tyr	Ile Leu Leu Gly
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Gly Ser Asp Lys Gln Val	Ser Leu Phe Thr Lys Asp	Gly Val Arg Leu
260	265	270
Gly Thr Val Gly Glu Gln	Asn Ser Trp Val Trp Thr	Cys Gln Ala Lys
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Pro Asp Ser Asn Tyr Val	Val Val Gly Cys Gln Asp	Gly Thr Ile Ser
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Phe Tyr Gln Leu Ile Phe	Ser Thr Val His Gly Leu	Tyr Lys Asp Arg
305	310	315
Tyr Ala Tyr Arg Asp Ser	Met Thr Asp Val Ile Val	Gln His Leu Ile
325	330	335
Thr Glu Gln Lys Val Arg	Ile Lys Cys Lys Glu Leu	Val Lys Lys Ile
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Ala Ile Tyr Arg Asn Arg	Leu Ala Ile Gln Leu Pro	Glu Lys Ile Leu
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Ile Tyr Glu Leu Tyr Ser	Glu Asp Leu Ser Asp Met	His Tyr Arg Val
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Lys Glu Lys Ile Ile Lys	Lys Phe Glu Cys Asn Leu	Leu Val Val Cys
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Ala Asn His Ile Ile Leu	Cys Gln Glu Lys Arg Leu	Gln Cys Leu Ser
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420	425	430
Tyr Ile Lys Val Ile Gly	Gly Pro Gly Arg Glu Gly	Leu Leu Val
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Gly Leu Lys Asn Gly Gln	Ile Leu Lys Ile Phe Val	Asp Asn Leu Phe
450	455	460
Ala Ile Val Leu Leu Lys	Gln Ala Thr Ala Val Arg	Cys Leu Asp Met
465	470	475
Ser Ala Ser Arg Lys Lys	Leu Ala Val Val Asp Glu	Asn Asp Thr Cys
485	490	495
Leu Val Tyr Asp Ile Asp	Thr Lys Glu Leu Leu Phe	Gln Glu Pro Asn
500	505	510
Ala Asn Ser Val Ala Trp	Asn Thr Gln Cys Glu Asp	Met Leu Cys Phe
515	520	525
Ser Gly Gly Gly Tyr Leu	Asn Ile Lys Ala Ser Thr	Phe Pro Val His
530	535	540
Arg Gln Lys Leu Gln Gly	Phe Val Val Gly Tyr Asn	Gly Ser Lys Ile
545	550	555
Phe Cys Leu His Val Phe	Ser Ile Ser Ala Val Glu	Val Pro Gln Ser
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Ala Pro Met Tyr Gln Tyr	Leu Asp Arg Lys Leu Phe	Lys Glu Ala Tyr
580	585	590
Gln Ile Ala Cys Leu Gly	Val Thr Asp Thr Asp Trp	Arg Glu Leu Ala
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Met Glu Ala Leu Glu Gly	Leu Asp Phe Glu Thr Ala	Lys Lys Ala Phe
610	615	620
Ile Arg Val Gln Asp Leu	Arg Tyr Leu Glu Leu Ile	Ser Ser Ile Glu
625	630	635
Glu Arg Lys Lys Arg Gly	Glu Thr Asn Asn Asp Leu	Phe Leu Ala Asp

5103

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1125	1130	1135
Arg Arg Asp Val Leu Ile Lys Arg Trp Pro Pro Pro Leu Arg Trp Gln		
1140	1145	1150
Tyr Phe Arg Ser Leu Leu Pro Asp Ala Ser Ile Thr Met Cys Pro Ser		
1155	1160	1165
Cys Phe Gln Val Gly Gly His Pro Gly Ser Ser His Val Leu Leu Leu		
1170	1175	1180
Ala Thr Phe Pro Leu Pro Lys Cys Pro Ser Gly Arg Arg Gly Pro Trp		
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Glu Gly Gly Ala His Pro Trp Leu Gln Val Gly Thr Glu Ala Cys Leu		1200
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 <213> Homo sapiens

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 720



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1989

&lt;210&gt; 5924

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5924

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Lys	Met	Lys	Asp	Ile	Lys	Thr	Ile	Phe	Ser	Glu	Phe	Ile	Thr	Ile	Glu
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Met	Leu	Phe	His	Gly	Lys	Ala	Leu	Glu	Val	Tyr	Thr	Ala	Ala	Tyr	Gln
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Asn	Ile	Gln	Asn	Ile	Asp	Glu	Asp	Glu	Asp	Leu	Glu	Val	Phe	Arg	Asn
65					70					75				80	
Ser	Leu	Tyr	Ala	Pro	Asp	Tyr	Ser	Ser	Arg	Leu	Asp	Ile	Val	Arg	Ala
			85						90					95	
Asn	Ser	Lys	Ser	Pro	Leu	Gln	Arg	Ser	Leu	Ser	Ala	Lys	Cys	Val	Ser
		100						105				110			
Gly	Thr	Gly	Gln	Val	Ser	Thr	Cys	Arg	Leu	Arg	Lys	Asp	Gln	Gln	Ala
	115						120					125			
Glu	Asp	Asp	Glu	Asp	Asp	Glu	Leu	Asp	Val	Thr	Glu	Glu	Glu	Asn	Phe
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Leu	Lys														
145															

&lt;210&gt; 5925

&lt;211&gt; 4538

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5925

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<211> 526

<212> PRT

<213> Homo sapiens

<400> 5926

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Gln	Pro	Phe	Leu	Pro	Val	Phe	Thr	Met	Pro	Leu	Leu	Ser	Pro	Ser	Pro	35	40	45	
Ala	Pro	Pro	Pro	Ile	Ser	Pro	Val	Leu	Pro	Leu	Val	Pro	Pro	Pro	Ala	50	55	60	
Thr	Ala	Leu	Asn	Pro	Pro	Ala	Pro	Pro	Thr	Phe	His	Gln	Pro	Gln	Lys	65	70	75	80
Phe	Ala	Gly	Val	Asn	Lys	Ala	Pro	Ser	Val	Ile	Thr	His	Thr	Ala	Ser	85	90	95	
Ala	Thr	Leu	Thr	His	Asp	Ala	Pro	Ala	Thr	Thr	Phe	Ser	Gln	Ser	Gln	100	105	110	
Gly	Leu	Val	Ile	Thr	Thr	His	His	Pro	Ala	Pro	Ser	Ala	Ala	Pro	Cys	115	120	125	
Gly	Leu	Ala	Leu	Ser	Pro	Val	Thr	Arg	Pro	Pro	Gln	Pro	Arg	Leu	Thr	130	135	140	
Phe	Val	His	Pro	Lys	Pro	Val	Ser	Leu	Thr	Gly	Gly	Arg	Pro	Lys	Gln	145	150	155	160
Pro	His	Lys	Ile	Val	Pro	Ala	Pro	Lys	Pro	Glu	Pro	Val	Ser	Leu	Val	165	170	175	
Leu	Lys	Asn	Ala	Arg	Ile	Ala	Pro	Ala	Ala	Phe	Ser	Gly	Gln	Pro	Gln	180	185	190	
Ala	Val	Ile	Met	Thr	Ser	Gly	Pro	Leu	Lys	Arg	Glu	Gly	Met	Leu	Ala	195	200	205	
Ser	Thr	Val	Ser	Gln	Ser	Asn	Val	Val	Ile	Ala	Pro	Ala	Ala	Ile	Ala	210	215	220	
Arg	Ala	Pro	Gly	Val	Pro	Glu	Phe	His	Ser	Ser	Ile	Leu	Val	Thr	Asp	225	230	235	240
Leu	Gly	His	Gly	Thr	Ser	Ser	Pro	Pro	Ala	Pro	Val	Ser	Arg	Leu	Phe	245	250	255	
Pro	Ser	Thr	Ala	Gln	Asp	Pro	Leu	Gly	Lys	Gly	Glu	Gln	Val	Pro	Leu				

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<211> 1786
<212> DNA
<213> Homo sapiens
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420
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540  
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660  
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720  
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1140  
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1260  
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1786

&lt;210&gt; 5928

&lt;211&gt; 202

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5928

Met Leu Glu Leu Pro Thr Ile Tyr Arg Lys Val Tyr Asp Gln Pro Phe

1	5	10	15
His Ser Ser Ala Leu Glu Lys Glu Glu Ala Leu Ser Asn Pro Gly Ala			
	20	25	30
Leu Asp Leu Pro Ser Leu Thr Ser Leu Leu Ser Glu Lys Ala Lys Glu			
	35	40	45
Phe Leu Met Glu Asn Arg Val Gln Ser Phe Tyr Gln Gln Glu Leu Glu			
	50	55	60
Met Val Glu Ser Leu Leu Ser Leu Ala Asn Gln Pro Val Ile His Ser			
	65	70	75
Ala Cys Ser Asp Gln Val Asn Phe Lys Lys Asp Thr Thr Ser Lys Ala			
	85	90	95
Ile His Ser Ile Phe Lys Asn Ala Ile Gln Leu Leu Gln Glu Lys Gly			
	100	105	110
Leu Val Phe Gln Lys Asp Asp Gly Phe Asp Asn Leu Tyr Tyr Val Thr			
	115	120	125
Arg Glu Asp Lys Asp Leu His Arg Lys Ile His Arg Ile Ile Gln Gln			
	130	135	140
Asp Cys Gln Lys Pro Asn His Met Glu Lys Gly Cys His Phe Leu His			
	145	150	155
Ile Leu Ala Cys Ala Arg Leu Ser Ile Arg Pro Gly Leu Ser Glu Ala			
	165	170	175
Val Leu Gln Gln Val Leu Glu Leu Leu Glu Asp Gln Ser Asp Ile Val			
	180	185	190
Ser Thr Met Glu His Tyr Tyr Thr Ala Phe			
	195	200	

&lt;210&gt; 5929

&lt;211&gt; 606

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5929

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120
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180
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240
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360
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480
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606

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<210> 5930  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

<400> 5930  
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 Ala Met Glu Tyr Val Asn Asp Phe Asp Leu Leu Lys Phe Asp Val Lys  
 20 25 30  
 Lys Glu Pro Leu Gly Arg Ala Glu Arg Pro Gly Arg Pro Cys Thr Arg  
 35 40 45  
 Leu Gln Pro Ala Gly Ser Val Ser Ser Thr Pro Leu Ser Thr Pro Cys  
 50 55 60  
 Ser Ser Val Pro Ser Ser Pro Ser Phe Ser Pro Thr Glu Gln Lys Thr  
 65 70 75 80  
 His Leu Glu Asp Leu Tyr Trp Met Ala Ser Asn Tyr Gln Gln Met Asn  
 85 90 95  
 Pro Glu Ala Leu Asn Leu Thr Pro Glu Asp Ala Val Glu Ala Leu Ile  
 100 105 110  
 Gly Ser His Pro Val Pro Gln Pro Leu Gln Ser Phe Asp Ser Phe Arg  
 115 120 125  
 Gly Ala His His His His His His His Pro His Pro His His Ala  
 130 135 140

<210> 5931  
 <211> 478  
 <212> DNA  
 <213> Homo sapiens

<400> 5931  
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 120  
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 180  
 tttctagttc aagaggtgat ggaagaagag tggaatgctt tgcagtcagt ggagaattgt  
 240  
 ccagaagact tggctcagct ggaggagctg atagacatgg ctgtgctgga ggaaattcaa  
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 360  
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<210> 5932  
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 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 5932

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 20 25 30  
 Glu Arg Met Arg Asn Ser Arg Asp Arg Leu Leu Asn Arg Tyr Arg Gln  
 35 40 45  
 Ala Gly Ser Ser Gly Pro Gly Asn Ser Gln Asn Ser Phe Leu Val Gln  
 50 55 60  
 Glu Val Met Glu Glu Glu Trp Asn Ala Leu Gln Ser Val Glu Asn Cys  
 65 70 75 80  
 Pro Glu Asp Leu Ala Gln Leu Glu Glu Leu Ile Asp Met Ala Val Leu  
 85 90 95  
 Glu Glu Ile Gln Gln Glu Leu Ile Asn Gln Gly Thr Thr  
 100 105

&lt;210&gt; 5933

&lt;211&gt; 1953

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5933

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 360  
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 420  
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 480  
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 780  
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 960

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 1200  
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<210> 5934

<211> 314

<212> PRT

<213> Homo sapiens

<400> 5934

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Arg	Ala	Gln	Lys	Glu	Leu	Lys	Leu	Lys	Asp	Glu	Glu	Cys	Glu	Arg	Leu
			20					25					30		
Ser	Lys	Val	Arg	Glu	Gln	Leu	Glu	Gln	Glu	Leu	Glu	Glu	Leu	Thr	Ala
		35					40					45			
Ser	Leu	Phe	Glu	Glu	Ala	His	Lys	Met	Val	Arg	Glu	Ala	Asn	Met	Lys
	50					55					60				
Gln	Ala	Ala	Ser	Glu	Lys	Gln	Leu	Lys	Glu	Ala	Arg	Gly	Lys	Ile	Asp
65					70				75					80	
Met	Leu	Gln	Ala	Glu	Val	Thr	Ala	Leu	Lys	Thr	Leu	Val	Ile	Thr	Ser
			85					90					95		
Thr	Pro	Ala	Ser	Pro	Asn	Arg	Glu	Leu	His	Pro	Gln	Leu	Leu	Ser	Pro

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<210> 5935
<211> 2727
<212> DNA
<213> Homo sapiens
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5116

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720  
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780  
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840  
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960  
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1980  
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2160  
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2220

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 2520  
 aaaaatcatc ttccatgttg cagttagtct ttcttttcat tacaagtctt tcacagaagt  
 2580  
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<210> 5936

<211> 154

<212> PRT

<213> Homo sapiens

<400> 5936

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His	Glu	Ser	Gln	Ser	Asp	Arg	Ala	Ser	Phe	Gly	Glu	Gly	Thr	Glu	Pro
			20					25					30		
Asp	Gln	Glu	Pro	Pro	Pro	Pro	Tyr	Gln	Glu	Gln	Val	Pro	Val	Pro	Val
	35						40				45				
Tyr	His	Pro	Thr	Pro	Ser	Gln	Thr	Arg	Leu	Ala	Thr	Gln	Leu	Thr	Glu
	50					55					60				
Glu	Glu	Gln	Ile	Arg	Ile	Ala	Gln	Arg	Ile	Gly	Leu	Ile	Gln	His	Leu
65				70						75				80	
Pro	Lys	Gly	Val	Tyr	Asp	Pro	Gly	Arg	Asp	Gly	Ser	Glu	Lys	Lys	Ile
			85					90					95		
Arg	Glu	Cys	Val	Ile	Cys	Met	Met	Asp	Phe	Val	Tyr	Gly	Asp	Pro	Ile
			100					105					110		
Arg	Phe	Leu	Pro	Cys	Met	His	Ile	Tyr	His	Leu	Asp	Cys	Ile	Asp	Asp
	115						120					125			
Trp	Leu	Met	Arg	Ser	Phe	Thr	Cys	Pro	Ser	Cys	Met	Glu	Pro	Val	Asp
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Ala	Ala	Leu	Leu	Ser	Ser	Tyr	Glu	Thr	Asn						
145					150										

<210> 5937

<211> 1536

<212> DNA

<213> Homo sapiens

<400> 5937

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720  
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780  
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1536

&lt;210&gt; 5938

&lt;211&gt; 406

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 5938

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Met Leu Thr Arg Lys Glu Thr Glu His Val Ser Ala Leu Ile Leu Arg
 1           5           10           15
Ala Phe Leu Leu Thr Ile Pro Glu Asn Ala Glu Gly His Ile Ile Leu
      20           25           30
Gly Lys Ser Leu Ile Val Pro Phe Lys Gly Ser Arg Val Ile Asp Ser
      35           40           45
Thr Val Leu Pro Gly Ile Leu Ile Glu Met Ser Glu Val Gln Leu Met
      50           55           60
Arg Leu Leu Pro Ile Lys Lys Ser Thr Ala Leu Lys Val Ala Leu Phe
65           70           75           80
Cys Thr Thr Leu Ser Gly Asp Thr Ser Asp Thr Gly Glu Gly Thr Val
      85           90           95
Val Val Ser Tyr Gly Val Ser Leu Glu Asn Ala Val Leu Asp Gln Leu
      100          105          110
Leu Asn Leu Gly Arg Gln Leu Ile Ser Asp His Val Asp Leu Val Leu
      115          120          125
Cys Gln Lys Val Ile His Pro Ser Leu Lys Gln Phe Leu Asn Met His
      130          135          140
Arg Ile Ile Ala Ile Asp Arg Ile Gly Val Thr Leu Met Glu Pro Leu
145          150          155          160
Thr Lys Met Thr Gly Thr Gln Pro Ile Gly Ser Leu Gly Ser Ile Cys
      165          170          175
Pro Asn Ser Tyr Gly Ser Val Lys Asp Val Cys Thr Ala Lys Phe Gly
      180          185          190
Ser Lys His Phe Phe His Leu Ile Pro Asn Glu Ala Thr Ile Cys Ser
      195          200          205
Leu Leu Leu Cys Asn Arg Asn Asp Thr Ala Trp Asp Glu Leu Lys Leu
      210          215          220
Thr Cys Gln Thr Ala Leu His Val Leu Gln Leu Thr Leu Lys Glu Pro
225          230          235          240
Trp Ala Leu Leu Gly Gly Gly Cys Thr Glu Thr His Leu Ala Ala Tyr
      245          250          255
Ile Arg His Lys Thr His Asn Asp Pro Glu Ser Ile Leu Lys Asp Asp
      260          265          270
Glu Cys Thr Gln Thr Glu Leu Gln Leu Ile Ala Glu Ala Phe Cys Ser
      275          280          285
Ala Leu Glu Ser Val Val Gly Ser Leu Glu His Asp Gly Gly Glu Ile
      290          295          300
Leu Thr Asp Met Lys Tyr Gly His Leu Trp Ser Val Gln Ala Asp Ser
305          310          315          320
Pro Cys Val Ala Asn Trp Pro Asp Leu Leu Ser Gln Cys Gly Cys Gly
      325          330          335
Leu Tyr Asn Ser Gln Glu Glu Leu Asn Trp Ser Phe Leu Arg Ser Thr
      340          345          350
Arg Arg Pro Phe Val Pro Gln Ser Cys Leu Pro His Glu Ala Val Gly
      355          360          365
Ser Ala Ser Asn Leu Thr Leu Asp Cys Leu Thr Ala Lys Leu Ser Gly
      370          375          380
Leu Gln Val Ala Val Glu Thr Ala Asn Leu Ile Leu Asp Leu Ser Tyr
385          390          395          400
Val Ile Glu Asp Lys Asn

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405

&lt;210&gt; 5939

&lt;211&gt; 795

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5939

nnctgtctcc cctccgcct ctccctgcat tcttggtgct tctgggctct ccctgggacc  
60  
ttatgtgcat tcgcctttcc ccaacgtgtc ccttctcccc tctcctcat cctccgggcg  
120  
gcgtgcgcct cctgcctctc cccggccggc cacacggtgg cgctgtgtcc cgctcgcccg  
180  
cccggccgcc gctcgccgc agcctgcaag cgcaaggaaac aggagcagca gaaggagcgc  
240  
gccctgcagc ccaagaagca gcgcctggtg ttcaccgacc tgcagcgacg cacgctgatc  
300  
gccatcttca aggagaacaa gcggccgtcc aaggagatgc aggtcaccat ctgcgagcag  
360  
ctcggttgg agctcaacac cgtcagcaac ttcttcatga acgcgcggcg ccgctgcatg  
420  
aaccgctggg ctgaggagcc cagcacggcc cccggggggc ccgcccggcg cacggccact  
480  
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540  
gtgccccac gtcacctccc cacatcctgc cggccccgag acccgcccc agggggcacc  
600  
tggaggggt gctatccggg cccccacac ccggggaggg ggaagcagca cccccccag  
660  
cccaagtgca caaaaagggc ccccttctt cctccatgc ccactccctc caggccaaag  
720  
gaagccctcc accccccccc ggaggggagg gaggacaga aaggggtttc ccagccccct  
780  
ctccattcag gacgc  
795

&lt;210&gt; 5940

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5940

Cys	Lys	Arg	Lys	Glu	Gln	Glu	Gln	Gln	Lys	Glu	Arg	Ala	Leu	Gln	Pro
1				5					10					15	
Lys	Lys	Gln	Arg	Leu	Val	Phe	Thr	Asp	Leu	Gln	Arg	Arg	Thr	Leu	Ile
			20					25					30		
Ala	Ile	Phe	Lys	Glu	Asn	Lys	Arg	Pro	Ser	Lys	Glu	Met	Gln	Val	Thr
		35				40					45				
Ile	Ser	Gln	Gln	Leu	Gly	Leu	Glu	Leu	Asn	Thr	Val	Ser	Asn	Phe	Phe
	50					55				60					
Met	Asn	Ala	Arg	Arg	Arg	Cys	Met	Asn	Arg	Trp	Ala	Glu	Glu	Pro	Ser
65					70					75				80	
Thr	Ala	Pro	Gly	Gly	Pro	Ala	Gly	Ala	Thr	Ala	Thr	Phe	Ser	Lys	Ala

85

90

95

&lt;210&gt; 5941

&lt;211&gt; 2590

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5941

tttttttttt tttttttttt ttaatcttct aagtcctttt aattgttctt ataaactagc  
60  
ataagatata aacttaagta gtacacatga gttttataat ttactaatct ctgacagata  
120  
gctaagcata gcacatcaga gcataacaca gtgtgaggga aataaagtgt acaatgacat  
180  
cttctattct ggaccttaata attcaataga gaaagaacta cttgtagtca ctgtgggttac  
240  
agaaggtttc atggacagcg aacataaagc tctactagct aacaaatagg tcttaatgat  
300  
aaaaacgtgg gccttcagag aactaaaggt accaatgtgt ggcagtccaa aattacgagg  
360  
aaaatgagtt cccttcagtg gtcacatcag caattttttt ttcccccttt gagacagagt  
420  
cttgctctgc tgncccaggt tggagtgcag tggcatgac caggctcact gcaacctccg  
480  
cctcccgggt tcaagcaatt ctcatgcctc agcctcccga gtagctggga ttacaggtgc  
540  
ctgtcatcac ggctggctac tttttgtatt tttagtagag acagggtttc accatgttgg  
600  
ccaggctggg ctcaaactcc tgacctcaag tgatctgctt gcttcagcct ccaaagtgc  
660  
tagggttaca gacatgagcc actgtgccc a gctacctcat caattcttaa tctataaacc  
720  
atggataggc ttcgggagaa cccaagaacc aatgaaatct gttggtaagt tttatgtgtg  
780  
cggttttcta cagagagggt caacagcatg tatattttca aagaagtctg tggtgcaaaa  
840  
gagagtttat tgtagaagt ccttgggcaa tcaacttgga aaagggtgga ttgagaatgg  
900  
gggctgtcta gatcaggata atgttgaatt tgacctcac ttgaggcttt tgtacagagg  
960  
atgagaagac ggtaaattca agggttaatc agaaattaac accaacatga cttggtgatg  
1020  
agtgagatgt gaaacgtgag aaaaacatca atgatgaaat caagcttctg acttgcaaca  
1080  
gtgagtatac caagagctac aggcttgga gatgaataaa gttgggagca ttctgttttt  
1140  
tcatgagtgc ccatgggaca gacagggaga aatggacagt tgaaagtaca agtctagaca  
1200  
ggcacagtgg ctcatgtctg taaccctagc actttgggag gctgagatag gagaattact  
1260  
agggttcagg agtttgagac gaacctgggt gacatagtga gagctcatct ctacaaaaaa  
1320  
taaaattagc tcggcatggg gctgcaagat tatagtcct cagcctctga gtagctggga  
1380

ttacagatgc tcaccacccat gcctaggtaa tttttgtatt tttagtagag atgggggttc  
 1440  
 accatattgg ccaggcaggt cttgaactcc tgacctccag agatctgccc acttcagcct  
 1500  
 cccaaagtgc tgggattaca ggcgtattcc actgtgccc a gctgagttt ctgttttagaa  
 1560  
 acaacagtct atgatagtat aatcctctct tttttgtaca cagagtaaag aggacaaata  
 1620  
 ggtgaaagaa taaatgaaag gctggaatcc cacttcccc gctgtcccag ggcattggat  
 1680  
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 1740  
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 1800  
 atggagagaa aggaacacag agagggagag gtcacatctt ggaagaggaa gattgtggag  
 1860  
 agggggaatg agggctctggg gaggggctgc ccatcagaga agggacctca gtgttgggg  
 1920  
 gactactcat ttggaaattg cgggatggag gggatattga aggtcggatg caaatccgag  
 1980  
 aagccagagg aagggttttg ggtgatgctc ccaggatggg gggctctgat gggatctttg  
 2040  
 gagggggtgt gtctaggtcg gctggtgtca ggagggtctt ttgtgtgcca ggcagagaac  
 2100  
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 2160  
 ccagagctca gatcccaaag gacctatagg agaggcaggg gccactcatt cactctgcaa  
 2220  
 gagaccagca gaatcctgag ggagatgctg acaaatcata aaaagaccaa gaatagccgg  
 2280  
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 2340  
 gtgagcccag cggttcgaga acaacctggg caacatgggtg agacctgtt tctacaaaca  
 2400  
 tttcaaaaat tagttgggca tgggtggcatg tgcttagtcc cagctcctca ggaggctgag  
 2460  
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 2520  
 cactccatcc tgggtggctt gagacctgt tgtagattc tagtcttgtc cattgttttt  
 2580  
 gagcttttta  
 2590

&lt;210&gt; 5942

&lt;211&gt; 89

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5942

Met	Ser	Ser	Leu	His	Gly	Ser	His	Gln	Gln	Phe	Phe	Phe	Pro	Leu	Leu
1			5					10					15		
Arg	Gln	Ser	Leu	Ala	Leu	Leu	Xaa	Gln	Val	Gly	Val	Gln	Trp	His	Asp
			20					25					30		
Pro	Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Gly	Phe	Lys	Gln	Phe	Ser	Cys

	35					40						45							
Leu	Ser	Leu	Pro	Ser	Ser	Trp	Asp	Tyr	Arg	Cys	Leu	Ser	Ser	Arg	Leu				
	50					55					60								
Ala	Thr	Phe	Cys	Ile	Phe	Ser	Arg	Asp	Arg	Val	Ser	Pro	Cys	Trp	Pro				
65					70					75					80				
Gly	Trp	Ser	Gln	Thr	Pro	Asp	Leu	Lys											
				85															

&lt;210&gt; 5943

&lt;211&gt; 781

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5943

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 60  
 tgcttggtt gaattgttgg aaatgatctc gactcggcgc aaactaaacc aactctggat  
 120  
 ggacaacttg ttgtaattgg taaggatgaa tcttatagca agacttctgg ggtttccagc  
 180  
 atcaccaagc ttcaaagaca accatttgga gttgagacca agcctggaat cctttgctgt  
 240  
 tttcaaaacg agtttgagaa cccttgcttt ccaaagtctc atttttctgt cacccaagct  
 300  
 ggagagcaat ggcgcgatct cagctcacca caacctccgc ctcccaggtt caagcaattc  
 360  
 tcctgtctca gcctcccag tagctgggac cacaggcacc cgccaccacg cccggctaac  
 420  
 ttttgtatth ttagtagaga cgaggtttca ccgcggtctc gatctcctga cctcatgna  
 480  
 tccgcccacc tcggcctccc aaagtgtctg gattacaggc gtgagccact gcgcccagcc  
 540  
 cagatcagcc ttttatthtag caagtcacca tcacaagaca tacaggctaa ggcttaaaag  
 600  
 aagcccttgg gtttaaaaca aatgtttagg aggagatgag aagtttctca tctttgatgg  
 660  
 ctacaaaaat catcaaaaca aattcaggtt cagagtctag aaaagatggt actatttgca  
 720  
 gcatgggtct gatacagcag ttcttaacgg gtaaactgct ttgttttaat ttatattaca  
 780  
 g  
 781

&lt;210&gt; 5944

&lt;211&gt; 174

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5944

Ile	Val	Gly	Asn	Asp	Leu	Asp	Ser	Ala	Gln	Thr	Lys	Pro	Thr	Leu	Asp
1			5						10					15	
Gly	Gln	Leu	Val	Val	Ile	Gly	Lys	Asp	Glu	Ser	Tyr	Ser	Lys	Thr	Ser
		20					25						30		
Gly	Val	Ser	Ser	Ile	Thr	Lys	Leu	Gln	Arg	Gln	Pro	Phe	Gly	Val	Glu

		35				40				45						
Thr	Lys	Pro	Gly	Ile	Leu	Cys	Cys	Phe	Gln	Asn	Glu	Phe	Glu	Asn	Pro	
	50					55					60					
Cys	Phe	Pro	Lys	Ser	His	Phe	Ser	Val	Thr	Gln	Ala	Gly	Glu	Gln	Trp	
65					70					75					80	
Arg	Asp	Leu	Ser	Ser	Pro	Gln	Pro	Pro	Pro	Pro	Arg	Phe	Lys	Gln	Phe	
				85					90					95		
Ser	Cys	Leu	Ser	Leu	Pro	Ser	Ser	Trp	Asp	His	Arg	His	Pro	Pro	Pro	
			100					105					110			
Arg	Pro	Ala	Asn	Phe	Cys	Ile	Phe	Ser	Arg	Asp	Glu	Val	Ser	Pro	Arg	
		115					120					125				
Ser	Arg	Ser	Pro	Asp	Leu	Met	Xaa	Ser	Ala	His	Leu	Gly	Leu	Pro	Lys	
	130					135					140					
Cys	Trp	Asp	Tyr	Arg	Arg	Glu	Pro	Leu	Arg	Pro	Ala	Gln	Ile	Ser	Leu	
145					150					155					160	
Leu	Phe	Ser	Lys	Ser	Pro	Ser	Gln	Asp	Ile	Gln	Ala	Lys	Ala			
				165					170							

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<210> 5945
<211> 869
<212> DNA
<213> Homo sapiens
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<400> 5945  
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120  
tggatgagtt aatggggccgg gaccgaaacc tagccccgga cgagaagcgc agcaacgtgc  
180  
ggtggggacca cgagagcgtt tgtaaatatt atctctgtgg tttttgtcct gcggaattgt  
240  
tcacaaatac acgttctgat cttgatgtat ttggaagagg agataacatt agagatgtca  
300  
gcaaattttt ggaagatgac aagtggatgg aggagtagca gcaaacgcaa cagagcagag  
360  
caacctgtac cctaaaagcc tgcagaaggg gatactaaac agaagcgagt gtttgatcag  
420  
cagaaccctg gacaggctca ggatttggag gcaccaggca gaagaaaaga ggattcttct  
480  
ctagagaaag tgaacagttc ctgagaagtg atctctgcag gtccgtgtga aaaaattcat  
540  
gatgaaaatc tacgaaaaca gtatgagaag agctctcgtt tcatgaaagt tggctatgag  
600  
agagattttt tgcgatactt acagagctta cttgcagaag tagaacgtag gatcagacga  
660  
ggccatgctc gtttggcatt atctcaaaac cagcagtctt ctggggccgc tggcccaaca  
720  
ggcaaaaatg gagaaaaaat tcagggttcta acagacaaaa ttgatgtact tctgcaacag  
780  
attgaagaat tagggtctga aggaaaagta gaagaagccc aggggatgat gaaattagtt  
840  
gagcaattaa aagaagagag agaactgct  
869

<210> 5946  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<400> 5946  
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 Arg Lys Gln Tyr Glu Lys Ser Ser Arg Phe Met Lys Val Gly Tyr Glu  
 20 25 30  
 Arg Asp Phe Leu Arg Tyr Leu Gln Ser Leu Leu Ala Glu Val Glu Arg  
 35 40 45  
 Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn Gln Gln  
 50 55 60  
 Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Gly Glu Lys Ile Gln  
 65 70 75 80  
 Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu Glu Leu  
 85 90 95  
 Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys Leu Val  
 100 105 110  
 Glu Gln Leu Lys Glu Glu Arg Glu Leu  
 115 120

<210> 5947  
 <211> 2283  
 <212> DNA  
 <213> Homo sapiens

<400> 5947  
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 cgagatggac tagccccaga aaagacatca ccagatagag ataagaaaaa agagcagtca  
 120  
 gaagtatctg tttctcctag agcttcaaaa catcattatt caagatcacg atcaagggtca  
 180  
 agagaaagaa aacgaaagtc agataatgaa ggaagaaaac acaggagccg gagcagaagc  
 240  
 aaagagcgtg cttatgcgcg aagagactga actgaagacg ctgcagactc agatagcaaa  
 300  
 ataataagcc tacttcatga tnnaagaacc aacttcttct taaaacaggg aagaagacat  
 360  
 gaatccaaag ataaatcctc taagaaacat aagtctgagg aacataatga caaagaacat  
 420  
 tcttctgata aaggaagaga gcgactaaat tcatctgaaa atggtgagga caggcacaaa  
 480  
 cgcaaagaaa gaaagtcatc aagaggcaga agtcactcaa gatctagggtc tcgtgaaaga  
 540  
 cgccatcgta gtagaagcag ggagcggaag aagtctcgat ccaggagtag ggagcggaag  
 600  
 aaatcgagat ccagaagcag agagaggaag aaatcgagat ccagaagcag ggaaagaaaa  
 660  
 cggcggatca ggtctcggtc ccgctcaaga tcaagacaca ggcataggac tagaagcagg  
 720



agtaggacaa ggagtaggag tcgagataga aagaagagaa ttgaaaagcc gagaagattt  
780  
agcagaagtt taagccggac tccaagtcca cctcccttca gaggcagaaa cacagcaatg  
840  
gatgcacagg aagcttttagc tagaagggtg gaaagggcaa agaaattaca agaacagcga  
900  
gaaaaggaaa tggttgaaaa acaaaaacaa caagaaatag ctgcagcagc tgcagctact  
960  
ggaggttctg ttctcaatgt tgctgccctg ttggcatcag gaacacaagt aacacctcag  
1020  
atagccatgg cagctcagat ggcagccctg caagctaaag ctttggcaga gacaggaata  
1080  
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1140  
aaaaaaagga aaatgctttg gcagggcaag aaagaagggg acaaatecca atctgctgaa  
1200  
atatgggaaa aattgaattt tggaaacaag gaccaaagt tcaaatttag gaaattgatg  
1260  
ggtattaaga gtgaagatga agctggatgt agctcagttg atgaagaaag ttacaagact  
1320  
ctgaagcagc aggaagaagt atttcgaaat ttagatgctc agtatgaaat ggcaagatca  
1380  
caaaccaca cacaagagg aatgggtttg ggtttcacat cttcaatgcg aggaatggat  
1440  
gcagtttgaa aatgatcaca cttgtaaagt ttgggactta tagacttctt gttctgatgt  
1500  
cacgtccttg ttcaccaaac agctagcact ctagcttgca tgggtgttgc attgacttta  
1560  
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1680  
agttcatgaa ttctactttt caaatatata aaagctgcag gtggggataa aatctcatac  
1740  
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1800  
tcattctctg aaacatgaaa gaaatgttat gtagatgttc tttagaagat ctggccattt  
1860  
ggtacataat ccagcacaga taagctgggt ggtaatgata ataaaaatgg ttttctcaaa  
1920  
actggtgtta atttaagtta cctgggatgt ttctttgaat ttgttttata gtttctgtag  
1980  
catttgga caa ttgctgttag aaaacactag ctagaaatcc cctccccacc acccttttta  
2040  
aggccagtta actatactac agtcaatacc gtggtgagca aaaatgtaaa aggtggaagg  
2100  
agaaaactta ctaaaatagt atgttttctt attataaggg acagacttgg tattcagtat  
2160  
ttgtcaaata ttacatgtgt tattcaggag atagattaat gcattaaagg gatgtaagca  
2220  
cttttatttt aataaagtgc cttataacaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
2280  
aaa  
2283

<210> 5948  
 <211> 76  
 <212> PRT  
 <213> Homo sapiens

<400> 5948  
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 Ser Pro Asp Arg Asp Lys Lys Lys Glu Gln Ser Glu Val Ser Val Ser  
 20 25 30  
 Pro Arg Ala Ser Lys His His Tyr Ser Arg Ser Arg Ser Arg Ser Arg  
 35 40 45  
 Glu Arg Lys Arg Lys Ser Asp Asn Glu Gly Arg Lys His Arg Ser Arg  
 50 55 60  
 Ser Arg Ser Lys Glu Arg Ala Tyr Ala Arg Arg Asp  
 65 70 75

<210> 5949  
 <211> 4706  
 <212> DNA  
 <213> Homo sapiens

<400> 5949  
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 120  
 gcgggtaggc cggtagggcc tgcgggtccgg cctgcgggag aactgggtcg tcagtcctcc  
 180  
 gagtgggtggg gctggggact ttgagggagt tggctctagg gcacagtccc tgcctggcca  
 240  
 ggtcggagga acaagtgctg ggatctggcg tgtgtgctcc aggggctctt tccgcggccc  
 300  
 tttccacctc ttttcacttt ggggacggta ggcctttata aacggactaa tgctgggtga  
 360  
 tttgttcctg tggttgttga tgccgaggaa agactctggg cccagaggact cacctaaact  
 420  
 ggagttcgaa tactgttcgc tcgctgtgtg accttgga aaataacaag cttttctgaa  
 480  
 gtgagaagct gttctcagcc acgagtcctg tgcaagatca ctaatgatta cctggcattt  
 540  
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 600  
 agacctcgag agcatggttc atcgatagag cccgtcaggc acgagaagaa aggcttgtgc  
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<210> 5950

<211> 397

<212> PRT

<213> Homo sapiens

<400> 5950

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His	Ala	Met	Lys	Gly	Val	Ile	Arg	Val	Lys	Phe	Val	Asn	Asp	Leu	Gly
		35					40					45			
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Gly Gly Phe His Gly Ser His Arg Val Ile Ile Trp Leu Trp Asp Ile		270
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Leu Ala Ser Asp Phe Thr Pro Asp Glu Arg Ala Met Phe Leu Lys Phe		285
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Val Thr Ser Cys Ser Arg Pro Pro Leu Leu Gly Phe Ala Tyr Leu Lys		300
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Pro Pro Phe Ser Ile Arg Cys Val Glu Val Ser Asp Asp Gln Asp Thr		320
	325	330
Gly Asp Thr Leu Gly Ser Val Leu Arg Gly Phe Phe Thr Ile Arg Lys		335
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Arg Glu Pro Gly Gly Arg Leu Pro Thr Ser Ser Thr Cys Phe Asn Leu		350
	355	360
Leu Lys Leu Pro Asn Tyr Ser Lys Lys Ser Val Leu Arg Glu Lys Leu		365
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&lt;210&gt; 5951

&lt;211&gt; 1724

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5951

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&lt;210&gt; 5952

&lt;211&gt; 378

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5952

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<211> 777
<212> DNA
<213> Homo sapiens
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 <212> PRT  
 <213> Homo sapiens

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&lt;210&gt; 5956

&lt;211&gt; 431

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5956

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<211> 855

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5957

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&lt;210&gt; 5958

&lt;211&gt; 106

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5958

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		35					40					45			
Ser	Ser	Gly	Pro	Gly	Asn	Ser	Gln	Asn	Ser	Phe	Leu	Val	Gln	Glu	Val
	50				55					60					
Met	Glu	Glu	Glu	Trp	Asn	Ala	Leu	Gln	Ser	Val	Glu	Asn	Cys	Pro	Glu
65					70					75				80	
Asp	Leu	Ala	Gln	Leu	Glu	Glu	Leu	Ile	Asp	Met	Ala	Val	Leu	Glu	Glu
			85					90						95	
Ile	Gln	Gln	Glu	Leu	Ile	Asn	Gln	Gly	Leu						

100

105

<210> 5959  
<211> 830  
<212> DNA  
<213> Homo sapiens

<400> 5959  
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120  
ctatatgatg acaatctctt ctgtcatttg gtggatgaag tactcttggt tgaaagggag  
180  
ctacacagtg ttcatggcta tcctggcact tttgctaatt gtatgcatat tctatcagag  
240  
gaaacctggt ttcaaagatg ggtgacgggg gagagaaaat ttgctcttca aaaaatggac  
300  
tcaatgcttt cctcagaagc tgcctgggta tcgcaatata aggatatcac tgacgtggat  
360  
gaaatgaaag ttccagattg tgcagaaact tttatgactc tactcttggt tataactgac  
420  
aggtataaaa atcttcccac agcttcccga aagcttcagt tcctggagtt acagaaggac  
480  
ttagtagatg attttaggat acgattaaca caagtgatga aagaagagac tagagcttcc  
540  
cttggctttc gatactgtgc aattcttaat gctgtgaact acatctcaac agtactagca  
600  
gattgggctg acaatgtttt ctttctacaa cttcaacagg ctgcactgga ggtgtttgca  
660  
gagaataata ctctgagtaa attgcagcta ggacagctag cctctatgga gagctctgtc  
720  
tttgatgaca tgattaacct cttagaacgt ttaaagcatg atatgttgac ccgtaagta  
780  
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830

<210> 5960  
<211> 251  
<212> PRT  
<213> Homo sapiens

<400> 5960  
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20 25 30  
Glu Arg Glu Leu His Ser Val His Gly Tyr Pro Gly Thr Phe Ala Asn  
35 40 45  
Cys Met His Ile Leu Ser Glu Glu Thr Cys Phe Gln Arg Trp Val Thr  
50 55 60  
Gly Glu Arg Lys Phe Ala Leu Gln Lys Met Asp Ser Met Leu Ser Ser  
65 70 75 80  
Glu Ala Ala Trp Val Ser Gln Tyr Lys Asp Ile Thr Asp Val Asp Glu

																85																	90																	95																	
Met	Lys	Val	Pro	Asp	Cys	Ala	Glu	Thr	Phe	Met	Thr	Leu	Leu	Leu	Val																																																				
																100																	105																	110																	
Ile	Thr	Asp	Arg	Tyr	Lys	Asn	Leu	Pro	Thr	Ala	Ser	Arg	Lys	Leu	Gln																																																				
																115																	120																	125																	
Phe	Leu	Glu	Leu	Gln	Lys	Asp	Leu	Val	Asp	Asp	Phe	Arg	Ile	Arg	Leu																																																				
																130																	135																	140																	
Thr	Gln	Val	Met	Lys	Glu	Glu	Thr	Arg	Ala	Ser	Leu	Gly	Phe	Arg	Tyr																																																				
																145																	150																	155																	160
Cys	Ala	Ile	Leu	Asn	Ala	Val	Asn	Tyr	Ile	Ser	Thr	Val	Leu	Ala	Asp																																																				
																165																	170																	175																	
Trp	Ala	Asp	Asn	Val	Phe	Phe	Leu	Gln	Leu	Gln	Gln	Ala	Ala	Leu	Glu																																																				
																180																	185																	190																	
Val	Phe	Ala	Glu	Asn	Asn	Thr	Leu	Ser	Lys	Leu	Gln	Leu	Gly	Gln	Leu																																																				
																195																	200																	205																	
Ala	Ser	Met	Glu	Ser	Ser	Val	Phe	Asp	Asp	Met	Ile	Asn	Leu	Leu	Glu																																																				
																210																	215																	220																	
Arg	Leu	Lys	His	Asp	Met	Leu	Thr	Arg	Gln	Val	Asp	His	Val	Phe	Arg																																																				
																225																	230																	235																	240
Glu	Val	Lys	Asp	Ala	Ala	Lys	Leu	Tyr	Lys	Lys																																																									
																245																	250																																		

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<210> 5961
<211> 585
<212> DNA
<213> Homo sapiens
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<400> 5961
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120
aattagagac  tgagacaggg  caggggtgccg  aggtgtctgc  atgcgtttca  tgtggatgcc
180
cgtgtctatt  ctggcctgct  cctggggccc  ctccccactc  agccctggct  gatgagaatg
240
ggacagggac  tcccttctcg  tgtccctgtg  cagcgtcggc  ccaggaggta  gcagagcagt
300
atatgcacat  ctgggtgtgc  cctcctgcat  gtccccacac  atctgtcatt  cctgtctttg
360
cacacctatg  tgactcccgc  atgttttgtg  ccttatgtgt  cccatgcatg  ctccccatct
420
gaccttgcg  gttctcgcg  gtctgtgtgc  ggccagtcct  gccttcactc  tctcatgggt
480
ggccctggca  gcatgtctgg  ctccccagca  ggtgagctca  ggagataaga  tggaagatgc
540
aacagccaat  ggtcaagaag  actccaaggc  ccagatggg  tccac
585

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<210> 5962
<211> 114
<212> PRT
<213> Homo sapiens
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&lt;400&gt; 5962

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 1 5 10 15  
 Leu Leu Pro Pro Gly Pro Thr Leu His Arg Asp Thr Arg Arg Glu Ser  
 20 25 30  
 Leu Ser His Ser His Gln Pro Gly Leu Ser Gly Glu Gly Ala Gln Glu  
 35 40 45  
 Gln Ala Arg Ile Asp Thr Gly Ile His Met Lys Arg Met Gln Thr Pro  
 50 55 60  
 Arg His Pro Ala Leu Ser Gln Ser Leu Ile Lys Phe Gly Ile Leu Phe  
 65 70 75 80  
 Asp Pro Ser Ile Phe Phe Leu Glu Thr Gly Ser Arg Phe Ile Ala Gln  
 85 90 95  
 Ala Glu Cys Ser Gly Tyr Ser Gln Ala Pro Leu Glu Arg Thr Ala Ala  
 100 105 110  
 Pro Ser

&lt;210&gt; 5963

&lt;211&gt; 1288

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5963

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 60  
 ttgaagataa gaaaggaaat gagagttgtt gacaggcaaa taagggatat ccaaagagaa  
 120  
 gaagaaaaag tgaaacgatc tgtgaaagat gctgcccaaga agggccagaa ggatgtctgc  
 180  
 atagttcttg ccaaggagat gatcagggtca aggaaggctg tgagcaagct gtatgcatcc  
 240  
 aaagcacaca tgaactcagt gctcatgggg atgaagaacc agctcgcggt cttgcgagtg  
 300  
 gctggttccc tgcagaagag cacagaagtg atgaaggcca tgcaaagtct tgtgaagatt  
 360  
 ccagagattc aggccaccat gagggagttg tccaaagaaa tgatgaaggc tgggatcata  
 420  
 gaggagatgt tagaggacac ttttgaaagc atggacgatc aggaagaaat ggaggaagaa  
 480  
 gcagaaatgg aaattgacag aattctcttt gaaattacag caggggcctt gggcaaagca  
 540  
 cccagtaaag tgactgatgc ccttccagag ccagaacctc caggagcgat ggctgcctca  
 600  
 gaggatgagg aggaggagga agaggctctg gaggccatgc agtcccggct ggccacactc  
 660  
 cgcagctagg ggctgcctac cccgctgggt gtgcacacac tcctctcaag agctgccatt  
 720  
 ttatgtgtct cttgcactac acctctgttg tgaggactac cattttggag aaggttctgt  
 780  
 ttgtctcttt tcattctctg cccaggtttt gggatcgcaa agggattgtt cttataaaag  
 840  
 tggcataaat aaatgcatca tttttaggag tatagacaga tatatcttat tgtggggagg  
 900

ggaaagaaat ccattctgctc atgaagcact tctgaaaata taggtgattg cctgaatgct  
 960  
 gaagactcta cttttgtcta taaaacacta tataaatgaa ttttaataaa tttttgcttc  
 1020  
 agcacttggc cccattgtag attgccctgt gcagtaaact ttcaagggtgt cagctgcccc  
 1080  
 agattgcttc atttgctggg tgtggaaaga gttgctatgg ccaggcatat gggatttgga  
 1140  
 agctcagcag aagtgacttc tgctctgtgg ttgctgctcc ccggctttca cagacatggt  
 1200  
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 1260  
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 1288

<210> 5964  
 <211> 222  
 <212> PRT  
 <213> Homo sapiens

<400> 5964  
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 Asn Glu Trp Ser Leu Lys Ile Arg Lys Glu Met Arg Val Val Asp Arg  
 20 25 30  
 Gln Ile Arg Asp Ile Gln Arg Glu Glu Glu Lys Val Lys Arg Ser Val  
 35 40 45  
 Lys Asp Ala Ala Lys Lys Gly Gln Lys Asp Val Cys Ile Val Leu Ala  
 50 55 60  
 Lys Glu Met Ile Arg Ser Arg Lys Ala Val Ser Lys Leu Tyr Ala Ser  
 65 70 75 80  
 Lys Ala His Met Asn Ser Val Leu Met Gly Met Lys Asn Gln Leu Ala  
 85 90 95  
 Val Leu Arg Val Ala Gly Ser Leu Gln Lys Ser Thr Glu Val Met Lys  
 100 105 110  
 Ala Met Gln Ser Leu Val Lys Ile Pro Glu Ile Gln Ala Thr Met Arg  
 115 120 125  
 Glu Leu Ser Lys Glu Met Met Lys Ala Gly Ile Ile Glu Glu Met Leu  
 130 135 140  
 Glu Asp Thr Phe Glu Ser Met Asp Asp Gln Glu Glu Met Glu Glu Glu  
 145 150 155 160  
 Ala Glu Met Glu Ile Asp Arg Ile Leu Phe Glu Ile Thr Ala Gly Ala  
 165 170 175  
 Leu Gly Lys Ala Pro Ser Lys Val Thr Asp Ala Leu Pro Glu Pro Glu  
 180 185 190  
 Pro Pro Gly Ala Met Ala Ala Ser Glu Asp Glu Glu Glu Glu Glu  
 195 200 205  
 Ala Leu Glu Ala Met Gln Ser Arg Leu Ala Thr Leu Arg Ser  
 210 215 220

<210> 5965  
 <211> 1011  
 <212> DNA  
 <213> Homo sapiens

&lt;400&gt; 5965

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 120  
 agatgcctgg agagaatgag aaacagccgg gacaggctcc taaacaggta ccgccaggct  
 180  
 ggaagcagtg ggccagggaa ttctcagaac agctttctag ttcaagaggt gatggaagaa  
 240  
 gagtggaatg ctttgcagnn tcagtgnag aattgtccag aagacttggc tcagttggag  
 300  
 gagctgatag acatggctgt gctggaggaa attcaacagg agctgatcaa ccaagagcag  
 360  
 tccatcatca gcgagtatga gaagagcttg cagtttgatg aaaagtgtct cagcatcatg  
 420  
 ctggctgagt gggaggcaaa cccactcatc tgtcctgtat gtacaaagta caacctgaga  
 480  
 atcacaagcg gtgtgggtgg gtgtcagtgt ggcctgtcca tcccatctca ttcttctgag  
 540  
 ttgacagagc agaagcttcg tgccctgttta gagggtagta taaatgagca cagtgcacat  
 600  
 tgtccccaca cacctgaatt ttcagtcact ggaggaacag aagaaaagtc cagtcttctc  
 660  
 atgagctgtc tggcctgtga tacttgggct gtgatcctct agagccagct tggactcaca  
 720  
 tcattctatg gggttgaaga caactcattc cctctgagga gccttgtaca tacaagcctt  
 780  
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 840  
 ccgacatctg ttcttggctt tttgtgacgc aggttgaagg gggaggaata gaaaaagaca  
 900  
 aactgccttg gaggagataa accaatttta tgtctatcat gttatacaaa aatctagaaa  
 960  
 taatagattt gtacagaaaa aaatgataat aaatgagaac acaaaacata t  
 1011

&lt;210&gt; 5966

&lt;211&gt; 233

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5966

Gly	Asn	Gly	Ser	Cys	Gly	Phe	Val	Ser	Arg	Glu	Glu	Glu	Met	Ala	Glu
1				5					10					15	
Ser	Leu	Arg	Ser	Pro	Arg	Arg	Ser	Leu	Tyr	Lys	Leu	Val	Gly	Ser	Pro
			20					25					30		
Pro	Trp	Lys	Glu	Ala	Phe	Arg	Gln	Arg	Cys	Leu	Glu	Arg	Met	Arg	Asn
		35					40				45				
Ser	Arg	Asp	Arg	Leu	Leu	Asn	Arg	Tyr	Arg	Gln	Ala	Gly	Ser	Ser	Gly
	50					55				60					
Pro	Gly	Asn	Ser	Gln	Asn	Ser	Phe	Leu	Val	Gln	Glu	Val	Met	Glu	Glu
65				70				75					80		
Glu	Trp	Asn	Ala	Leu	Gln	Xaa	Gln	Trp	Xaa	Asn	Cys	Pro	Glu	Asp	Leu

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<400> 5967
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120
tgtgcttttg ttgctaggca gtcaacagca gggctactaa agcacttcta atttagacaa
180
atcttttcct ctattttaga aatggatttc aatggtggttc agtttggttg cagaaaccta
240
ctgaaagtga gcatgttttt gaacacatta acaccgaagt tctacgtggc cctaacaggc
300
acttcctcac taatatcagg gcttattttg atatttgaat ggtggtattt tcgcaaatac
360
ggaacttcat tcattgaaca agtctcagta agccacttgc gcccccttct gggagggggtt
420
gacaacaact cttccaacaa ttctaattcc agtaacgggg actcagattc caataggcaa
480
agtgtctcag aatgcaaagt atggcgaaat ccactaaatt tatttagggg tgctgaatac
540
aatcggtata cttgggtgac aggacgagag cctcttactt actatgacat gaatctctct
600
gcccaagacc accagacatt ctttacttgt gactcggacc atctgcgtcc cgcagatgca
660
ataatgcaga aagcctggag agagagaaac cccaagcta ggatttctgc agctcatgaa
720
gccttggaga taaatgagac gagacaccaa tgtcttggtg tacatcaaaa gaaggctagc
780
aatgtgtgcc agaagactcg ggaggaccag ggaagcaaag cccttctgga actacaagca
840
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tatgctgatg ttcaggcagt cttagcaaag tatgatgata taagcttacc aaagtcagca  
 900  
 acaatatgct acacagctgc tttgctcaaa gcaagagctg tctctgacaa attctctcct  
 960  
 gaggctgcat ctggcgggg gctgagcaca gcagagatga atgcagtaga ggccattcat  
 1020  
 agagctgtgg aattcaatcc tcatgtgcca aaatacctac tagaaatgaa aagcttaatc  
 1080  
 ctacccccag aacatatcct gaagagagga gacagtgaag caatagcata tgcattcttt  
 1140  
 catcttgac actggaagag agtggaaggg gctttgaatc ttttgattg tacgtgggaa  
 1200  
 ggcacttttc ggatgatccc ttatcccttg gaaaaggggc acctatttta tccttaccga  
 1260  
 atctgtacag aaacagcaga ccgagagctg cttccatctt tccatgaagt ctgagtttac  
 1320  
 ccaaagaagg agcttccctt ctttattctc tttactgctg gattatgttc cttcacagcc  
 1380  
 atgctggccc tcctgacaca tcagttcccg gaacttatgg gggctctcgc aaaagctgtg  
 1440  
 agtgtttgcc tagagggagg ccttggggaa tggatgggga aagccaaggg cataaaagca  
 1500  
 gcgtgagaga aatgggggtg ccttacagaa atgggtacga gcctgcaaag atcattgctc  
 1560  
 accatttaat tttcatgac gtcaatggaa tcaaagcatt aagggtcaaa tgagaaagtg  
 1620  
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 1680  
 tgcaggaggt ccaaaaggat ggaatgattt aggaaatcct agcaaataaa aatgtgtggg  
 1740  
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 1800  
 ctttcc  
 1806

&lt;210&gt; 5968

&lt;211&gt; 434

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5968

Met	Asp	Phe	Asn	Gly	Val	Gln	Phe	Val	Cys	Arg	Asn	Leu	Leu	Lys	Val
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Ser	Met	Phe	Leu	Asn	Thr	Leu	Thr	Pro	Lys	Phe	Tyr	Val	Ala	Leu	Thr
			20					25					30		
Gly	Thr	Ser	Ser	Leu	Ile	Ser	Gly	Leu	Ile	Leu	Ile	Phe	Glu	Trp	Trp
		35					40					45			
Tyr	Phe	Arg	Lys	Tyr	Gly	Thr	Ser	Phe	Ile	Glu	Gln	Val	Ser	Val	Ser
	50					55				60					
His	Leu	Arg	Pro	Leu	Leu	Gly	Gly	Val	Asp	Asn	Asn	Ser	Ser	Asn	Asn
65					70					75				80	
Ser	Asn	Ser	Ser	Asn	Gly	Asp	Ser	Asp	Ser	Asn	Arg	Gln	Ser	Val	Ser
				85					90					95	
Glu	Cys	Lys	Val	Trp	Arg	Asn	Pro	Leu	Asn	Leu	Phe	Arg	Gly	Ala	Glu

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Tyr Asn Arg Tyr Thr Trp Val Thr Gly Arg Glu Pro Leu Thr Tyr Tyr
      115      120      125
Asp Met Asn Leu Ser Ala Gln Asp His Gln Thr Phe Phe Thr Cys Asp
      130      135      140
Ser Asp His Leu Arg Pro Ala Asp Ala Ile Met Gln Lys Ala Trp Arg
145      150      155      160
Glu Arg Asn Pro Gln Ala Arg Ile Ser Ala Ala His Glu Ala Leu Glu
      165      170      175
Ile Asn Glu Thr Arg His Gln Cys Leu Gly Val His Gln Lys Lys Ala
      180      185      190
Ser Asn Val Cys Gln Lys Thr Arg Glu Asp Gln Gly Ser Lys Ala Leu
      195      200      205
Leu Glu Leu Gln Ala Tyr Ala Asp Val Gln Ala Val Leu Ala Lys Tyr
      210      215      220
Asp Asp Ile Ser Leu Pro Lys Ser Ala Thr Ile Cys Tyr Thr Ala Ala
225      230      235      240
Leu Leu Lys Ala Arg Ala Val Ser Asp Lys Phe Ser Pro Glu Ala Ala
      245      250      255
Ser Arg Arg Gly Leu Ser Thr Ala Glu Met Asn Ala Val Glu Ala Ile
      260      265      270
His Arg Ala Val Glu Phe Asn Pro His Val Pro Lys Tyr Leu Leu Glu
      275      280      285
Met Lys Ser Leu Ile Leu Pro Pro Glu His Ile Leu Lys Arg Gly Asp
      290      295      300
Ser Glu Ala Ile Ala Tyr Ala Phe Phe His Leu Ala His Trp Lys Arg
305      310      315      320
Val Glu Gly Ala Leu Asn Leu Leu His Cys Thr Trp Glu Gly Thr Phe
      325      330      335
Arg Met Ile Pro Tyr Pro Leu Glu Lys Gly His Leu Phe Tyr Pro Tyr
      340      345      350
Pro Ile Cys Thr Glu Thr Ala Asp Arg Glu Leu Leu Pro Ser Phe His
      355      360      365
Glu Val Ser Val Tyr Pro Lys Lys Glu Leu Pro Phe Phe Ile Leu Phe
      370      375      380
Thr Ala Gly Leu Cys Ser Phe Thr Ala Met Leu Ala Leu Leu Thr His
385      390      395      400
Gln Phe Pro Glu Leu Met Gly Val Phe Ala Lys Ala Val Ser Val Cys
      405      410      415
Leu Glu Gly Gly Leu Gly Glu Trp Met Gly Lys Ala Lys Gly Ile Lys
      420      425      430
Ala Ala

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&lt;210&gt; 5969

&lt;211&gt; 429

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5969

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60
ctgggcggcg gggaaggggt cccggatctg cagcctgggg tcttggccag ccaggccatg
120

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attgagaaga tcctgagcga ggacccccgg tggcaagatg ccaacttcgt gctgggcagc  
 180  
 tacaagacgg agcagtgccc gaagccgcca cgcctgtgcc gccagggcta tgcgtgccc  
 240  
 cactaccaca atagccggga caggcggcgc aacccccggc ggttccagta caggccacg  
 300  
 ccctgccccca gcgtgaagca cggggatgag tggggggaac cctcacgctg cgatggcggc  
 360  
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 420  
 tctacaaaa  
 429

<210> 5970

<211> 143

<212> PRT

<213> Homo sapiens

<400> 5970

Arg	Pro	Pro	Val	Cys	Asp	Val	Arg	Glu	Leu	Gln	Ala	Gln	Glu	Ala	Leu
1				5				10					15		
Gln	Asn	Gly	Gln	Leu	Gly	Gly	Gly	Glu	Gly	Val	Pro	Asp	Leu	Gln	Pro
			20					25					30		
Gly	Val	Leu	Ala	Ser	Gln	Ala	Met	Ile	Glu	Lys	Ile	Leu	Ser	Glu	Asp
		35					40					45			
Pro	Arg	Trp	Gln	Asp	Ala	Asn	Phe	Val	Leu	Gly	Ser	Tyr	Lys	Thr	Glu
	50					55					60				
Gln	Cys	Pro	Lys	Pro	Pro	Arg	Leu	Cys	Arg	Gln	Gly	Tyr	Ala	Cys	Pro
65					70					75				80	
His	Tyr	His	Asn	Ser	Arg	Asp	Arg	Arg	Arg	Asn	Pro	Arg	Arg	Phe	Gln
			85						90					95	
Tyr	Arg	Ser	Thr	Pro	Cys	Pro	Ser	Val	Lys	His	Gly	Asp	Glu	Trp	Gly
			100					105					110		
Glu	Pro	Ser	Arg	Cys	Asp	Gly	Gly	Asp	Gly	Cys	Gln	Tyr	Cys	His	Ser
		115				120					125				
Arg	Thr	Glu	Gln	Gln	Phe	His	Pro	Glu	Ile	Tyr	Lys	Ser	Thr	Lys	
	130					135						140			

<210> 5971

<211> 565

<212> DNA

<213> Homo sapiens

<400> 5971

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 120  
 catgtccctt aggtcagcta agcccacatc agtgtccaaa taggcaacat ccctatttta  
 180  
 tagatgggtca tccccatttt agagatagct cccttttata tccccatttt acaggtgaag  
 240  
 gaattgaggc acagaagggt aggtcacttc tgcaagatga ccagctgaac caaaatttca  
 300



gggcttcaaa caccaaagt gttcctttgt cttccgtttc ccacttgctt cccagaggct  
 360  
 cagcaagtag cctctggcca ctgagcatcc tcccgccac tttgctccct gcctcctgat  
 420  
 cccaggactg tggccgtgga tgccagagcg aggatgtgaa tcctgttggg ttctgaagcc  
 480  
 cacacctacc ctcagccttg aagctgcagc aatggctgct tccagatgag cacaccctcg  
 540  
 ggggtgcangc gtccagtgtc acgat  
 565

<210> 5972

<211> 104

<212> PRT

<213> Homo sapiens

<400> 5972

Met	His	Arg	Ala	Leu	Ser	Cys	Pro	Leu	Gly	Gln	Leu	Ser	Pro	His	Gln
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Cys	Pro	Asn	Arg	Gln	His	Pro	Tyr	Phe	Ile	Asp	Gly	His	Pro	His	Phe
		20						25					30		
Arg	Asp	Ser	Ser	Leu	Leu	Tyr	Pro	His	Phe	Thr	Gly	Glu	Gly	Ile	Glu
		35					40					45			
Ala	Gln	Lys	Val	Arg	Ser	Leu	Leu	Gln	Asp	Asp	Gln	Leu	Asn	Gln	Asn
	50					55					60				
Phe	Arg	Ala	Ser	Asn	Thr	Lys	Cys	Val	Pro	Leu	Ser	Ser	Val	Ser	His
65				70						75				80	
Leu	Leu	Pro	Arg	Gly	Ser	Ala	Ser	Ser	Leu	Trp	Pro	Leu	Ser	Ile	Leu
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Pro	Pro	Thr	Leu	Leu	Pro	Ala	Ser								
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<210> 5973

<211> 797

<212> DNA

<213> Homo sapiens

<400> 5973

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 120  
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 180  
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 300  
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 480

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<210> 5974

<211> 107

<212> PRT

<213> Homo sapiens

<400> 5974

Met	Glu	Gly	Ser	Gly	Thr	Gly	Lys	Arg	Arg	Gly	Lys	Ala	Ala	Lys	Thr
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Ser	Leu	Arg	Ile	Met	Asp	Ala	Arg	Ala	Gln	Leu	Leu	Leu	Arg	Val	Pro
			20					25						30	
His	Pro	Gly	Pro	Ser	Leu	Thr	Ser	Gly	Ala	Leu	Thr	His	Ile	Arg	Asp
		35					40					45			
Pro	His	Pro	Gly	Leu	Ser	Pro	Thr	Ser	Gly	Thr	Leu	Met	Pro	Gly	Arg
	50					55					60				
Arg	Arg	Gly	Gly	Pro	Ser	Phe	Gly	Thr	Pro	Ala	Leu	Arg	Arg	Arg	Lys
65					70					75					80
Cys	His	Arg	Glu	Ala	Pro	Ala	Ser	Gly	Leu	Ser	Thr	Ala	Ala	Arg	Glu
			85					90						95	
Arg	Leu	Trp	Trp	Pro	Arg	Ala	Arg	Val	Cys	Arg					
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<210> 5975

<211> 2175

<212> DNA

<213> Homo sapiens

<400> 5975

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 cagagggcca cgtacaagta tgagatgatt aacaagcaga atgagcagat gcatgcgctg  
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 cgggagaaat atggggacaa gatgttgcgc atgtcttata ccgctgatga ttatgagtct  
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 360  
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 420

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480  
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1080  
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gcggacacca aggtcgccag gcggttatggg gatttcttca tccgtcagat ccacaaattt  
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1980  
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<210> 5976

<211> 564

<212> PRT

<213> Homo sapiens

<400> 5976

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Tyr	Ala	Tyr	Pro	Ser	Asp	Tyr	Asp	Met	His	Thr	Gly	Asp	Pro	Lys	Gln
			20					25					30		
Asp	Leu	Ala	Tyr	Glu	Arg	Gln	Tyr	Glu	Gln	Gln	Thr	Tyr	Gln	Val	Ile
		35					40					45			
Pro	Glu	Val	Ile	Lys	Asn	Phe	Ile	Gln	Tyr	Phe	His	Lys	Thr	Val	Ser
	50					55					60				
Asp	Leu	Ile	Asp	Gln	Lys	Val	Tyr	Glu	Leu	Gln	Ala	Ser	Arg	Val	Ser
65					70					75				80	
Ser	Asp	Val	Ile	Asp	Gln	Lys	Val	Tyr	Glu	Ile	Gln	Asp	Ile	Tyr	Glu
				85					90					95	
Asn	Ser	Trp	Thr	Lys	Leu	Thr	Glu	Arg	Phe	Phe	Lys	Asn	Thr	Pro	Trp
			100					105					110		
Pro	Glu	Ala	Glu	Ala	Ile	Ala	Pro	Gln	Val	Gly	Asn	Asp	Ala	Val	Phe
		115					120					125			
Leu	Ile	Leu	Tyr	Lys	Glu	Leu	Tyr	Tyr	Arg	His	Ile	Tyr	Ala	Lys	Val
	130						135				140				
Ser	Gly	Gly	Pro	Ser	Leu	Glu	Gln	Arg	Phe	Glu	Ser	Tyr	Tyr	Asn	Tyr
145					150					155				160	
Cys	Asn	Leu	Phe	Asn	Tyr	Ile	Leu	Asn	Ala	Asp	Gly	Pro	Ala	Pro	Leu
				165					170					175	
Glu	Leu	Pro	Asn	Gln	Trp	Leu	Trp	Asp	Ile	Ile	Asp	Glu	Phe	Ile	Tyr
			180					185					190		
Gln	Phe	Gln	Ser	Phe	Ser	Gln	Tyr	Arg	Cys	Lys	Thr	Ala	Lys	Lys	Ser
		195					200					205			
Glu	Glu	Glu	Ile	Asp	Phe	Leu	Arg	Ser	Asn	Pro	Lys	Ile	Trp	Asn	Val
	210					215					220				
His	Ser	Val	Leu	Asn	Val	Leu	His	Ser	Leu	Val	Asp	Lys	Ser	Asn	Ile
225					230					235				240	
Asn	Arg	Gln	Leu	Glu	Val	Tyr	Thr	Ser	Gly	Gly	Asp	Pro	Glu	Ser	Val
			245						250				255		
Ala	Gly	Glu	Tyr	Gly	Arg	His	Ser	Leu	Tyr	Lys	Met	Leu	Gly	Tyr	Phe
		260					265					270			
Ser	Leu	Val	Gly	Leu	Leu	Arg	Leu	His	Ser	Leu	Leu	Gly	Asp	Tyr	Tyr
		275					280					285			
Gln	Ala	Ile	Lys	Val	Leu	Glu	Asn	Ile	Glu	Leu	Asn	Lys	Lys	Ser	Met
	290					295					300				
Tyr	Ser	Arg	Val	Pro	Glu	Cys	Gln	Val	Thr	Thr	Tyr	Tyr	Tyr	Val	Gly
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<210> 5977
<211> 2320
<212> DNA
<213> Homo sapiens
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180
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tcaaaaaaca cgTtaaattt aagcagaata aggctgggTt cggtggctca tgctgtgat
480
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<210> 5978

<211> 77

<212> PRT

<213> Homo sapiens

<400> 5978

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			20					25					30		
Gly	Arg	Gly	Gly	Gln	Ile	Ile	Xaa	Ala	Arg	Ser	Ser	Arg	Pro	Ala	Trp
		35					40					45			
Thr	Thr	Trp	Arg	Xaa	Val	Phe	Thr	Lys	Asn	Thr	Lys	Ile	Ser	Trp	Ala
	50					55					60				
Trp	Trp	Tyr	Thr	Pro	Val	Ile	Pro	Ala	Thr	Gln	Glu	Ala			
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<210> 5979

<211> 1095

<212> DNA

<213> Homo sapiens

<400> 5979

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<210> 5980  
 <211> 169  
 <212> PRT  
 <213> Homo sapiens

<400> 5980  
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 35 40 45  
 Thr His Leu Val Leu Ile Cys Tyr Asp Val Met Asn Pro Thr Ser Tyr  
 50 55 60  
 Asp Asn Val Leu Ile Lys Trp Phe Pro Glu Val Thr His Phe Cys Arg  
 65 70 75 80  
 Gly Ile Pro Met Val Leu Ile Gly Cys Lys Thr Asp Leu Arg Lys Asp  
 85 90 95  
 Lys Glu Gln Leu Arg Lys Leu Arg Ala Ala Gln Leu Glu Pro Ile Thr  
 100 105 110  
 Tyr Met Gln Gly Leu Ser Ala Cys Glu Gln Ile Arg Ala Ala Leu Tyr  
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 Leu Glu Cys Ser Ala Lys Phe Arg Glu Asn Val Glu Asp Val Phe Arg  
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<210> 5981  
 <211> 677  
 <212> DNA  
 <213> Homo sapiens

<400> 5981  
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&lt;210&gt; 5982

&lt;211&gt; 98

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5982

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Arg	Ile	Pro	Lys	Ser	Asp	Asp	Gly	Thr	Arg	Thr	Gly	Arg	Asn	Asp	Ser
			20					25					30		
Pro	Arg	Ala	Pro	Leu	Pro	Arg	Ser	Ser	Ala	Arg	Arg	Pro	Ser	Lys	Ala
		35					40					45			
Asn	Leu	His	Thr	Leu	Gly	Gln	Leu	Lys	Leu	Ser	Arg	Arg	Cys	Arg	Glu
	50					55				60					
Pro	Arg	Leu	Gly	Arg	Ala	Gly	Gln	Gln	Arg	Leu	His	Pro	Arg	Thr	Arg
65				70					75					80	
Pro	Arg	Arg	Gly	Ser	Gly	Pro	Leu	Val	Arg	Ala	Gly	Arg	Arg	Gly	Trp
			85						90					95	
Gly	Lys														

&lt;210&gt; 5983

&lt;211&gt; 790

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5983

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&lt;210&gt; 5984

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5984

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Thr	His	Ser	Gly	Arg	Gly	Thr	Met	Tyr	Ser	Ser	Trp	Val	Lys	Ser	Pro
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Asp	Arg	Thr	Gly	Val	Asn	Phe	Ser	Val	Asn	Ser	Asn	Leu	Arg	Asp	Leu
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185

&lt;210&gt; 5985

&lt;211&gt; 737

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 5985

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&lt;210&gt; 5986

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 5986

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Arg Glu Glu Ala Lys Ser His Pro Phe Ser Val Ile Tyr Arg Tyr Phe  
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<212> PRT

<213> Homo sapiens

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<213> Homo sapiens

<400> 5994

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<212> PRT

<213> Homo sapiens

<400> 5996

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<212> DNA

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<213> Homo sapiens

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<210> 5999

<211> 2759

<212> DNA

<213> Homo sapiens

<400> 5999

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<210> 6000

<211> 757

<212> PRT

<213> Homo sapiens

<400> 6000

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Lys Asn Leu Leu Asn Met	Tyr His Gln Ala Leu	Ser Thr Arg Met Gln
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Asp Leu Ala Ser Glu Asp	Leu Glu Ala Asn Glu	Ile Val Ser Leu Leu
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Thr Trp Val Leu Asn Thr	Tyr Thr Ser Thr Glu	Met Met Arg Asn Val
355	360	365
Glu Leu Ala Pro Glu Val	Asp Val Gly Thr Leu	Glu Pro Leu Leu Ser
370	375	380
Pro His Val Val Ser Glu	Leu Leu Asp Thr Tyr	Met Ser Thr Leu Thr
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420	425	430
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Gln Val Ala Ala Gln Ile	Ser Glu Asp Leu Lys	Thr Lys Val Leu Val
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Leu Cys Leu Gln Gln Met	Asn Ser Phe Leu Ser	Arg Tyr Lys Asp Glu
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485	490	495
Cys Tyr Val Gln Tyr Met	Ile Ala Ile Ile Asn	Asn Cys Gln Thr Phe
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Lys Met Val Arg Glu Ala	Glu Gln Arg Arg Phe	Leu Phe Arg Lys Leu
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Ala Ser Gly Phe Gly Glu	Asp Val Asp Gly Tyr	Cys Asp Thr Ile Val
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Glu Val Ser Thr Leu Val	Ser Lys Tyr Pro Asp	Ile Arg Asp Asp His
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&lt;210&gt; 6001

&lt;211&gt; 2490

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6001

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&lt;210&gt; 6002

&lt;211&gt; 263

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6002

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&lt;210&gt; 6003

&lt;211&gt; 3107

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6003

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&lt;210&gt; 6004

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6004

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			20					25					30		
Pro	Ala	Val	Pro	Lys	Val	Ala	Pro	Gly	Thr	Met	Pro	Thr	Arg	Pro	Glu
		35					40					45			
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	50					55				60					
Ser	Pro	Arg	Gly	Glu	Arg	Gly	Ser	Gly	Pro	His	Ala	Val	Gln	Gly	Val
65					70				75					80	
Ala	Leu	Pro	Xaa	Arg	Gly	Ser	Pro	Arg	Gly	Pro	Gly	Pro	Arg	Ala	Pro
			85					90					95		
Gly	Arg	Gly	Arg	Asp	Cys	Gly	Gly	Asn	Gly	Pro	Ala	Glu	Ala	Pro	Ala



	100		105		110										
Pro	Leu	Ser	Ser	Ala	Phe	Gln	Pro	Pro	Ala	Leu	Gly	Pro	Ala	Pro	Lys
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 <211> 1735  
 <212> DNA  
 <213> Homo sapiens

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&lt;210&gt; 6006

&lt;211&gt; 200

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6006

Glu	Leu	Gly	Leu	Pro	Gly	Ala	Pro	Gly	Ile	Asp	Gly	Glu	Lys	Gly	Pro
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		20						25					30		
Gly	Glu	Ala	Gly	Glu	Met	Gly	Leu	Ser	Gly	Leu	Pro	Gly	Ala	Asp	Gly
	35					40					45				
Leu	Lys	Gly	Glu	Lys	Gly	Glu	Ser	Ala	Ser	Gln	Pro	Thr	Gly	Glu	Pro
	50				55					60					
Gly	Ser	Ala	His	Ser	Glu	Pro	Gly	Pro	Pro	Gly	Pro	Pro	Gly	Pro	Pro
65				70				75					80		
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		85				90							95		
Ala	Lys	Gly	Glu	Lys	Gly	Ala	Ser	Gly	Glu	Arg	Gly	Ser	Ser	Gly	Leu
		100				105						110			
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	115					120					125				
Gly	Glu	Lys	Gly	Arg	Pro	Gly	Glu	Pro	Gly	Leu	Asp	Gly	Phe	Pro	Gly
	130				135						140				
Pro	Arg	Gly	Glu	Lys	Gly	Asp	Arg	Ser	Glu	Arg	Gly	Glu	Lys	Gly	Glu
145				150				155						160	
Arg	Gly	Val	Pro	Gly	Arg	Lys	Gly	Val	Lys	Gly	Gln	Lys	Gly	Glu	Pro
		165				170							175		
Gly	Pro	Pro	Gly	Leu	Asp	Gln	Pro	Cys	Pro	Val	Gly	Pro	Asp	Gly	Leu
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&lt;210&gt; 6007

&lt;211&gt; 693

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6007

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&lt;210&gt; 6008

&lt;211&gt; 214

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6008

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			20					25					30		
Gly	Lys	Met	Val	Lys	Lys	Val	Cys	Pro	Cys	Asn	Gln	Leu	Cys	Arg	Thr
		35				40					45				
Ser	Ser	Thr	Asn	Thr	Val	Gly	Ala	Thr	Val	Asn	Ser	Gln	Ala	Ala	Gln
	50					55				60					
Ala	Gln	Pro	Pro	Ala	Met	Thr	Ser	Ser	Arg	Lys	Gly	Thr	Phe	Thr	Asp
65					70				75					80	
Asp	Leu	His	Lys	Leu	Val	Asp	Asn	Trp	Ala	Arg	Asp	Ala	Met	Asn	Leu
			85					90					95		
Ser	Gly	Arg	Arg	Gly	Ser	Lys	Gly	His	Met	Asn	Tyr	Glu	Gly	Pro	Gly
			100				105					110			
Met	Ala	Arg	Lys	Phe	Ser	Ala	Pro	Gly	Gln	Leu	Cys	Ile	Ser	Met	Thr
		115				120				125					
Ser	Asn	Leu	Gly	Gly	Ser	Ala	Pro	Ile	Ser	Ala	Ala	Ser	Ala	Thr	Ser
	130					135				140					
Leu	Gly	His	Phe	Thr	Lys	Ser	Met	Cys	Pro	Pro	Gln	Gln	Tyr	Gly	Phe
145					150				155					160	
Pro	Ala	Thr	Pro	Phe	Gly	Ala	Gln	Trp	Ser	Gly	Thr	Gly	Gly	Pro	Ala

				165					170					175					
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			180					185					190						
Asn	Phe	Asn	Ile	Ser	Asn	Leu	Gln	Lys	Ser	Ile	Ser	Asn	Pro	Pro	Gly				
		195					200					205							
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&lt;210&gt; 6009

&lt;211&gt; 1570

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6009

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<210> 6010

<211> 468

<212> PRT

<213> Homo sapiens

<400> 6010

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			20					25					30		
Asp	Thr	Val	Tyr	Asp	Val	Val	Val	Ser	Gly	Gly	Gly	Leu	Val	Gly	Ala
		35					40					45			
Ala	Met	Ala	Cys	Ala	Leu	Gly	Tyr	Asp	Ile	His	Phe	His	Asp	Lys	Lys
	50					55					60				
Ile	Leu	Leu	Leu	Glu	Ala	Gly	Pro	Lys	Lys	Val	Leu	Glu	Lys	Leu	Ser
65				70					75					80	
Glu	Thr	Tyr	Ser	Asn	Arg	Val	Ser	Ser	Ile	Ser	Pro	Gly	Ser	Ala	Thr
			85					90					95		
Leu	Leu	Ser	Ser	Phe	Gly	Ala	Trp	Asp	His	Ile	Cys	Asn	Met	Arg	Tyr
			100					105					110		
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		115				120						125			
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	130					135					140				
Asn	Asp	Val	Ile	Met	His	Ala	Leu	Thr	Lys	Gln	Leu	Glu	Ala	Val	Ser
145				150					155					160	
Asp	Arg	Val	Thr	Val	Leu	Tyr	Arg	Ser	Lys	Ala	Ile	Arg	Tyr	Thr	Trp
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		195					200					205			
Gly	His	Asn	Ser	Gly	Val	Arg	Gln	Ala	Val	Gly	Ile	Gln	Asn	Val	Ser
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Trp	Asn	Tyr	Asp	Gln	Ser	Ala	Val	Val	Ala	Thr	Leu	His	Leu	Ser	Glu
225				230					235					240	
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			260					265				270			
Thr	Ser	His	Glu	His	Ala	Ala	Glu	Leu	Val	Ser	Met	Asp	Glu	Glu	Lys
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Phe	Val	Asp	Ala	Val	Asn	Ser	Ala	Phe	Trp	Ser	Asp	Ala	Asp	His	Thr
	290					295					300				
Asp	Phe	Ile	Asp	Thr	Ala	Gly	Ala	Met	Leu	Gln	Tyr	Pro	Val	Ser	Leu
305					310					315				320	
Leu	Lys	Pro	Thr	Lys	Val	Ser	Ala	Arg	Gln	Leu	Pro	Pro	Ser	Val	Pro
			325						330					335	
Trp	Val	Asp	Ala	Lys	Ser	Arg	Val	Leu	Phe	Pro	Leu	Gly	Leu	Gly	His
		340						345				350			
Ala	Ala	Glu	Tyr	Val	Arg	Pro	Arg	Val	Ala	Leu	Ile	Gly	Asp	Ala	Ala
	355						360					365			
His	Arg	Val	His	Pro	Leu	Ala	Gly	Gln	Gly	Val	Asn	Met	Gly	Phe	Gly
	370					375					380				
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Lys	Asp	Leu	Gly	Ser	Val	Ser	His	Leu	Thr	Gly	Tyr	Glu	Thr	Glu	Arg
			405						410					415	
Gln	Arg	His	Asn	Thr	Ala	Leu	Leu	Ala	Ala	Thr	Asp	Leu	Leu	Lys	Arg
		420						425				430			
Leu	Tyr	Ser	Thr	Ser	Ala	Ser	Pro	Leu	Val	Leu	Leu	Arg	Thr	Trp	Gly
	435						440					445			
Leu	Gln	Ala	Thr	Asn	Ala	Val	Ser	Pro	Leu	Lys	Glu	Gln	Ile	Met	Ala
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Phe	Ala	Ser	Lys												
465															

&lt;210&gt; 6011

&lt;211&gt; 1331

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6011

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&lt;210&gt; 6012

&lt;211&gt; 219

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6012

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			20				25					30			
Lys	Glu	Pro	Gly	Asp	Ser	Ala	Gln	Phe	Thr	Lys	Ala	Ile	Ala	Ile	Ile
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Glu	His	Leu	Lys	His	Gln	Thr	Val	Tyr	Arg	Leu	Leu	Lys	Cys	Ala	Pro
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Arg	Gly	Lys	Asn	Gly	Phe	Thr	Pro	Leu	His	Met	Ala	Val	Asp	Lys	Asp
			85					90					95		
Thr	Thr	Asn	Val	Gly	Arg	Tyr	Pro	Val	Gly	Arg	Phe	Pro	Ser	Leu	His
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Val	Val	Lys	Val	Leu	Leu	Asp	Cys	Gly	Ala	Asp	Pro	Asp	Ser	Arg	Asp
	115					120				125					
Phe	Asp	Asn	Asn	Thr	Pro	Leu	His	Ile	Ala	Ala	Gln	Asn	Asn	Cys	Pro
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Ala	Ile	Met	Asn	Ala	Leu	Ile	Glu	Ala	Gly	Ala	His	Met	Asp	Ala	Thr
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Asn	Ala	Phe	Lys	Lys	Thr	Ala	Tyr	Glu	Leu	Leu	Asp	Glu	Lys	Leu	Leu





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<210> 6014

<211> 182

<212> PRT

<213> Homo sapiens

<400> 6014

Arg	Gln	His	Asn	Lys	Asp	Lys	Pro	Phe	Lys	Cys	His	Asn	Cys	His	Arg
1				5					10					15	
Ala	Tyr	Thr	Asp	Ala	Ala	Ser	Leu	Glu	Val	His	Leu	Ser	Thr	His	Thr
			20					25					30		
Val	Lys	His	Ala	Lys	Val	Tyr	Thr	Cys	Thr	Ile	Cys	Ser	Arg	Ala	Tyr
		35				40					45				
Thr	Ser	Glu	Thr	Tyr	Leu	Met	Lys	His	Met	Arg	Lys	His	Asn	Pro	Pro
	50				55					60					
Asp	Leu	Gln	Gln	Gln	Val	Gln	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Val	Ala
65					70				75					80	
Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala
			85				90						95		
Gln	Ala	Gln	Ala	Gln	Ala	Ser	Gln	Ala	Ser	Gln	Gln	Gln	Gln	Gln	Gln

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      100      105      110
Gln Gln Gln Gln Gln Gln Gln Gln Gln Pro Pro Pro His Phe Gln Ser
      115      120      125
Pro Gly Ala Ala Pro Gln Gly Gly Gly Gly Gly Asp Ser Asn Pro Asn
      130      135      140
Pro Pro Pro Gln Cys Ser Phe Asp Leu Thr Pro Tyr Lys Thr Ala Glu
145      150      155      160
His His Lys Asp Ile Cys Leu Thr Val Thr Thr Ser Thr Ile Gln Val
      165      170      175
Glu His Leu Ala Ser Ser
      180

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&lt;210&gt; 6015

&lt;211&gt; 612

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6015

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480
gccagtgaga gaacagtcac acgataaagg cacagcacag cagttggttg tctcttttta
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612

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&lt;210&gt; 6016

&lt;211&gt; 99

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6016

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Met Glu Arg Gly Lys Lys Ala Cys Arg Leu Arg Arg Arg Ala His Arg
 1      5      10      15
Pro Arg Ser Pro Glu Arg Leu Pro Ala Ser Gln Gly Ile Ser Arg Gly
      20      25      30
Arg Cys Lys Leu Asn Asn Asn Ser Trp Ser Gly Leu Thr Cys Pro Thr
      35      40      45
Leu Ser Met Ser Cys Asn Gln Asn Lys Leu Asp Ser Pro Gly Arg Ala

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50		55		60
Ser His Gly Ser Ser Leu Pro Phe Asn Gln Asp Ser Gln Lys Pro Ala				
65		70		75
Phe Tyr Asn Ile Phe Leu Lys Lys Ser His Ser Phe Gln Ser Leu Leu				80
	85		90	95
Gln Tyr Ile				

&lt;210&gt; 6017

&lt;211&gt; 2091

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6017

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 2091

&lt;210&gt; 6018

&lt;211&gt; 537

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6018

Pro	Ala	Lys	Phe	Asn	Phe	Ala	Ser	Asp	Val	Leu	Asp	His	Trp	Ala	Asp
1				5					10					15	
Met	Glu	Lys	Ala	Gly	Lys	Arg	Leu	Pro	Ser	Pro	Ala	Leu	Trp	Trp	Val
			20					25					30		
Asn	Gly	Lys	Gly	Lys	Glu	Leu	Met	Trp	Asn	Phe	Arg	Glu	Leu	Ser	Glu
		35					40					45			
Asn	Ser	Gln	Gln	Ala	Ala	Asn	Val	Leu	Ser	Gly	Ala	Cys	Gly	Leu	Gln
	50					55					60				
Arg	Gly	Asp	Arg	Val	Ala	Val	Met	Leu	Pro	Arg	Val	Pro	Glu	Trp	Trp
65				70					75					80	
Leu	Val	Ile	Leu	Gly	Cys	Ile	Arg	Ala	Gly	Leu	Ile	Phe	Met	Pro	Gly
			85						90					95	
Thr	Ile	Gln	Met	Lys	Ser	Thr	Asp	Ile	Leu	Tyr	Arg	Leu	Gln	Met	Ser
		100					105					110			
Lys	Ala	Lys	Ala	Ile	Val	Ala	Gly	Asp	Glu	Val	Ile	Gln	Glu	Val	Asp
	115						120					125			
Thr	Val	Ala	Ser	Glu	Cys	Pro	Ser	Leu	Arg	Ile	Lys	Leu	Leu	Val	Ser

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Glu Lys Ser Cys Asp Gly Trp Leu Asn Phe Lys Lys Leu Leu Asn Glu		
145	150	155
Ala Ser Thr Thr His His Cys Val Glu Thr Gly Ser Gln Glu Ala Ser		160
	165	170
Ala Ile Tyr Phe Thr Ser Gly Thr Ser Gly Leu Pro Lys Met Ala Glu		175
	180	185
His Ser Tyr Ser Ser Leu Gly Leu Lys Ala Lys Met Asp Ala Gly Trp		190
	195	200
Thr Gly Leu Gln Ala Ser Asp Ile Met Trp Thr Ile Ser Asp Thr Gly		205
210	215	220
Trp Ile Leu Asn Ile Leu Gly Ser Leu Leu Glu Ser Trp Thr Leu Gly		225
	230	235
Ala Cys Thr Phe Val His Leu Leu Pro Lys Phe Asp Pro Leu Val Ile		240
	245	250
Leu Lys Thr Leu Ser Ser Tyr Pro Ile Lys Ser Met Met Gly Ala Pro		255
	260	265
Ile Val Tyr Arg Met Leu Leu Gln Gln Asp Leu Ser Ser Tyr Lys Phe		270
	275	280
Pro His Leu Gln Asn Cys Leu Ala Gly Gly Glu Ser Leu Leu Pro Glu		285
	290	295
Thr Leu Glu Asn Trp Arg Ala Gln Thr Gly Leu Asp Ile Arg Glu Phe		300
305	310	315
Tyr Gly Gln Thr Glu Thr Gly Leu Thr Cys Met Val Ser Lys Thr Met		320
	325	330
Lys Ile Lys Pro Gly Tyr Met Gly Thr Ala Ala Ser Cys Tyr Asp Val		335
	340	345
Gln Val Ile Asp Asp Lys Gly Asn Val Leu Pro Pro Gly Thr Glu Gly		350
	355	360
Asp Ile Gly Ile Arg Val Lys Pro Ile Arg Pro Ile Gly Ile Phe Ser		365
	370	375
Gly Tyr Val Glu Asn Pro Asp Lys Thr Ala Ala Asn Ile Arg Gly Asp		380
385	390	395
Phe Trp Leu Leu Gly Asp Arg Gly Ile Lys Asp Glu Asp Gly Tyr Phe		400
	405	410
Gln Phe Met Gly Arg Ala Asp Asp Ile Ile Asn Ser Ser Gly Tyr Arg		415
	420	425
Ile Gly Pro Ser Glu Val Glu Asn Ala Leu Met Lys His Pro Ala Val		430
	435	440
Val Glu Thr Ala Val Ile Ser Ser Pro Asp Pro Val Arg Gly Glu Val		445
	450	455
Val Lys Ala Phe Val Val Leu Ala Ser Gln Phe Leu Ser His Asp Pro		460
465	470	475
Glu Gln Leu Thr Lys Glu Leu Gln Gln His Val Lys Ser Val Thr Ala		480
	485	490
Pro Tyr Lys Tyr Pro Arg Lys Ile Glu Phe Val Leu Asn Leu Pro Lys		495
	500	505
Thr Val Thr Gly Lys Ile Gln Arg Ala Lys Leu Arg Asp Lys Glu Trp		510
	515	520
Lys Met Ser Gly Lys Ala Arg Ala Gln		525
530	535	

&lt;210&gt; 6019

&lt;211&gt; 3002

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6019

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gt  
3002

&lt;210&gt; 6020

&lt;211&gt; 387

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6020

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Met Ala Ala Ile Pro Ala Leu Asp Pro Glu Ala Glu Pro Ser Met Asp
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Val Ile Leu Val Gly Ser Ser Glu Leu Ser Ser Ser Val Ser Pro Gly
      20           25           30
Thr Gly Arg Asp Leu Ile Ala Tyr Glu Val Lys Ala Asn Gln Arg Asn
      35           40           45
Ile Glu Asp Ile Cys Ile Cys Cys Gly Ser Leu Gln Val His Thr Gln
      50           55           60
His Pro Leu Phe Glu Gly Gly Ile Cys Ala Pro Cys Lys Asp Lys Phe
65           70           75           80
Leu Asp Ala Leu Phe Leu Tyr Asp Asp Asp Gly Tyr Gln Ser Tyr Cys
      85           90           95
Ser Ile Cys Cys Ser Gly Glu Thr Leu Leu Ile Cys Gly Asn Pro Asp
      100          105          110
Cys Thr Arg Cys Tyr Cys Phe Glu Cys Val Asp Ser Leu Val Gly Pro
      115          120          125
Gly Thr Ser Gly Lys Val His Ala Met Ser Asn Trp Val Cys Tyr Leu
      130          135          140
Cys Leu Pro Ser Ser Arg Ser Gly Leu Leu Gln Arg Arg Arg Lys Trp
145          150          155          160
Arg Ser Gln Leu Lys Ala Phe Tyr Asp Arg Glu Ser Glu Asn Pro Leu
      165          170          175
Glu Met Phe Glu Thr Val Pro Val Trp Arg Arg Gln Pro Val Arg Val
      180          185          190
Leu Ser Leu Phe Glu Asp Ile Lys Lys Glu Leu Thr Ser Leu Gly Phe
      195          200          205
Leu Glu Ser Gly Ser Asp Pro Gly Gln Leu Lys His Val Val Asp Val
      210          215          220
Thr Asp Thr Val Arg Lys Asp Val Glu Glu Trp Gly Pro Phe Asp Leu
225          230          235          240
Val Tyr Gly Ala Thr Ala Pro Leu Gly His Thr Cys Asp Arg Pro Pro
      245          250          255
Ser Trp Tyr Leu Phe Gln Phe His Arg Phe Leu Gln Tyr Ala Arg Pro
      260          265          270
Lys Pro Gly Ser Pro Arg Pro Phe Phe Trp Met Phe Val Asp Asn Leu
      275          280          285
Val Leu Asn Lys Glu Asp Leu Asp Val Ala Ser Arg Phe Leu Glu Met
      290          295          300
Glu Pro Val Thr Ile Pro Asp Val His Gly Gly Ser Leu Gln Asn Ala
305          310          315          320
Val Arg Val Trp Ser Asn Ile Pro Ala Ile Arg Ser Ser Arg His Trp
      325          330          335
Ala Leu Val Ser Glu Glu Glu Leu Ser Leu Leu Ala Gln Asn Lys Gln
      340          345          350
Ser Ser Lys Leu Ala Ala Lys Trp Pro Thr Lys Leu Val Lys Asn Cys
      355          360          365
Phe Leu Pro Leu Arg Glu Tyr Phe Lys Tyr Phe Ser Thr Glu Leu Thr
      370          375          380
Ser Ser Leu

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385

&lt;210&gt; 6021

&lt;211&gt; 3145

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6021

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5 October 2000 (05.10.2000)

PCT

(10) International Publication Number  
**WO 00/58473 A3**

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C07K 14/47, 16/18, G01N 33/566, C12Q 1/68, C12N  
15/11, 15/62, A01K 67/027, A61K 38/00

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(21) International Application Number: PCT/US00/08621

(74) Agent: ELRIFI, Ivor, R.; Mintz, Levin, Cohn, Ferris,  
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(22) International Filing Date: 31 March 2000 (31.03.2000)

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(81) Designated States (*national*): AE, AL, AM, AT, AU, AZ,  
BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK,  
DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,  
IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,  
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RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,  
UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM,  
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(AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent  
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MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM,  
GA, GN, GW, ML, MR, NE, SN, TD, TG).

(63) Related by continuation (CON) or continuation-in-part  
(CIP) to earlier applications:

US 60/127,607 (CIP)  
Filed on 31 March 1999 (31.03.1999)  
US 60/127,636 (CIP)  
Filed on 2 April 1999 (02.04.1999)  
US 60/127,728 (CIP)  
Filed on 5 April 1999 (05.04.1999)  
US 09/540,763 (CIP)  
Filed on 30 March 2000 (30.03.2000)

Published:

- With international search report.
- Before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments.

(71) Applicant (*for all designated States except US*): CURA-  
GEN CORPORATION [US/US]; 555 Long Wharf Drive,  
11th Floor, New Haven, CT 06511 (US).

(88) Date of publication of the international search report:  
25 January 2001

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): SHIMKETS,

*For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.*

(54) Title: NUCLEIC ACIDS INCLUDING OPEN READING FRAMES ENCODING POLYPEPTIDES; "ORFX"

(57) Abstract: The present invention provides open reading frames encoding isolated polypeptides, as well as polynucleotides en-  
coding ORFX and antibodies that immunospecifically bind to ORFX or any derivative, variant, mutant, or fragment of the ORFX  
polypeptides, polynucleotides or antibodies. The invention additionally provides methods in which the ORFX polypeptide, polynu-  
cleotide and antibody are used in detection and treatment of a broad range of pathological states, as well as to other uses.

WO 00/58473 A3



# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US 00/08621

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C07K14/47 C07K16/18 G01N33/566 C12Q1/68  
C12N15/11 C12N15/62 A01K67/027 A61K38/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K G01N A01K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EMBASE, MEDLINE, CAB Data, PAJ, EPO-Internal, WPI Data, STRAND

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	COLE S.T.: "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence." NATURE, vol. 393, 11 June 1998 (1998-06-11), XP002144873 sequence	
A	LAMERDIN J.E.: "Sequence analysis of a 3.5 Mb contig in human 19p13.3 containing a serine protease gene cluster." EMEST DATABASE ENTRY, 8 February 1999 (1999-02-08), XP002144874 sequence	

☒ Further documents are listed in the continuation of box C.

☐ Patent family members are listed in annex.

### \* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

21 August 2000

Date of mailing of the international search report

23.11.00

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Hix, R

# INTERNATIONAL SEARCH REPORT

Internat' Application No  
PCT/US 00/08621

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	<p>M.D. ADAMS ET AL.: "The genome sequence of <i>Drosophila melanogaster</i>."  SCIENCE,  vol. 287, 24 March 2000 (2000-03-24),  pages 2185-2195, XP002144875  the whole document  -----</p>	6

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US 00/08621

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 27 to 32 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

claims 1 to 32 partially

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claim : 1 to 32 partially

Isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from a group consisting of SEQ ID NO 2n wherein n is 1, oligonucleotides less than 100 nucleotides in length and comprising at least 6 contiguous nucleotides from the above sequence, polypeptides encoded by said nucleotides, antibodies that bind to said polypeptide, pharmaceutical composition comprising said polypeptide and methods of detection, screening, therapeutic uses involving said polypeptide.

2. Claim : .

Inventions 2 to 3161

claims 1 to 32 partially :

Isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from a group consisting of SEQ ID NO 2n wherein n is 2 to 3161, oligonucleotides less than 100 nucleotides in length and comprising at least 6 contiguous nucleotides from the above sequence, polypeptides encoded by said nucleotides, antibodies that bind to said polypeptide, pharmaceutical composition comprising said polypeptide and methods of detection, screening, therapeutic uses involving said polypeptide.

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&lt;211&gt; 496

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6026

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&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6030

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<211> 1096

<212> PRT

<213> Homo sapiens

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Pro	Pro	Gln	Pro	Gln	Tyr	Ser	Tyr	His	Asp	Ile	Asn	Val	Tyr	Ser	Leu	65	70	75	80
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&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

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<211> 214

<212> PRT

<213> Homo sapiens

<400> 6038

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Pro	Ala	Leu	Lys	Ile	Thr	Arg	Arg	Tyr	Ala	Phe	Ala	His	Ile	Leu	Thr
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Gln Asn Val	Val Pro Glu Ala	Glu Gly Glu Asp	Asp Pro Ala Gly	Glu	
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Ala Gln Ala	Gly Arg Leu Pro	Leu Leu Pro Cys	Ala Arg Ala Tyr	Val	
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Ser Pro Arg	Ala Pro Phe Tyr	Arg Pro Leu Ala	Pro Glu Leu Arg	Ala	
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Arg Gln Leu	Glu Leu Gly Ala	Glu His Ala Leu	Leu Leu Asp	Ala Ala	
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Gly Gln Val	Phe Ser Trp Gly	Gly Gly Arg His	Gly Gln Leu Gly	His	
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Gly Thr Leu	Glu Ala Glu Leu	Glu Pro Arg Leu	Leu Glu Ala Leu	Gln	
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Gly Leu Val	Met Ala Glu Val	Ala Ala Gly Gly	Trp His Ser Val	Cys	
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Val Ser Glu	Thr Gly Asp Ile	Tyr Ile Trp Gly	Trp Asn Glu Ser	Gly	
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Gln Leu Ala	Leu Pro Thr Arg	Asn Leu Ala Glu	Asp Gly Glu Thr	Val	
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Ala Arg Glu	Ala Thr Glu Leu	Asn Glu Asp Gly	Ser Gln Val Lys	Arg	
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Thr Gly Gly	Ala Glu Asp Gly	Ala Pro Ala Pro	Phe Ile Ala Val	Gln	
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Pro Phe Pro	Ala Leu Leu Asp	Leu Pro Met Gly	Ser Asp Ala Val	Lys	
225		230		235	240
Ala Ser Cys	Gly Ser Arg His	Thr Ala Val Val	Thr Arg Thr Gly	Glu	
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Leu Tyr Thr	Trp Gly Trp Gly	Lys Tyr Gly Gln	Leu Gly His Glu	Asp	
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Thr Thr Ser	Leu Asp Arg Pro	Arg Arg Val Glu	Tyr Phe Val Asp	Lys	
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Gln Leu Gln	Val Lys Ala Val	Thr Cys Gly Pro	Trp Asn Thr Tyr	Val	
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Tyr Ala Val	Glu Lys Gly Lys	Ser			
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&lt;210&gt; 6041

&lt;211&gt; 291

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6041

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<212> PRT  
<213> Homo sapiens

<400> 6042  
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<212> DNA  
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<212> PRT  
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&lt;400&gt; 6044

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Lys Ile Ala Pro Leu Glu Ser His His Arg Pro Lys Arg Pro Asp Asp
          35           40           45
Pro Pro Gly Thr Leu Asn Pro Cys Pro Glu Arg Gly Gly Ala Gly Val
          50           55           60
Trp Ile Pro Ala Gly Ser Phe Gly Thr Gly Lys Asn Arg Gly Cys Ser
65           70           75           80
Asp Arg Val Phe Thr Lys Thr Cys Ile Arg Gln Asp Pro Gly Arg Met
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Trp Val Ala Pro Pro Leu Cys Trp Ala Arg Arg Met Cys Pro His Arg
          100          105          110
Ser Gln Ile Leu Phe Pro Gln Trp Val Val Gln Asp Thr Leu Asn Phe
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Cys Met Asn Trp Asp Ile Gln Asn Ser Leu Glu Gln Pro Pro Pro Ser
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Thr Leu Cys Leu Asp Ile Ser Tyr
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&lt;210&gt; 6045

&lt;211&gt; 1916

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6045

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 1916

&lt;210&gt; 6046

&lt;211&gt; 457

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6046

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Glu	Val	Ile	Ala	Val	Val	Met	Asp	Val	Phe	Thr	Asp	Ile	Asp	Ile	Phe
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&lt;210&gt; 6047

&lt;211&gt; 773

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6047

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&lt;210&gt; 6048

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6048

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His	Leu	Pro	Ser	Ala	Cys	Leu	Gly	Ala	Arg	Arg	Ser	Ser	Ser	Leu	Leu
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Gly	Tyr	Gly	Ser	Cys	Arg	Asp	Thr	Gln	Ser	Trp	Thr	Pro	Asp	Pro	Leu
65					70				75					80	
Pro	His	Pro	Pro	Ser	Leu	Ser	Pro	Gln	Ser	Leu	Leu	Tyr	Ser	Gln	Ala
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Met	Arg	Ser	Pro	Ile	Ser	His	Gln	Glu	Leu	Thr	Arg	Pro	Leu	Gly	Lys
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<211> 479  
<212> DNA  
<213> Homo sapiens

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<210> 6050  
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<212> PRT  
<213> Homo sapiens

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Pro Pro Leu Gln Pro Arg Asp Ser Ala Ser Pro Ser Thr Ser Ser Phe  
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Lys Leu Arg Phe Glu Asp Thr Leu Glu Phe Val Gly Phe Asp Ala Lys  
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<213> Homo sapiens

<400> 6052

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Ser	Asp	Gly	Gly	Val	Ser	Trp	Ser	Pro	Met	Asp	Asp	Glu	Leu	Leu	Ala
	50					55				60					
Gln	Pro	Gln	Val	Met	Lys	Leu	Leu	Asp	Ser	Leu	Arg	Glu	Gln	Tyr	Thr
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Glu	Ile	Gln	Gln	Lys	Val	Met	Gln	Val	Val	Asn	Trp	Leu	Glu	Gly	Pro
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Gly	Ser	Glu	Gln	Leu	Arg	Ala	Gln	Trp	Gly	Ile	Gly	Asp	Ser	Ile	Arg
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      180              185              190
Phe Arg Gln Asn Leu Leu Gln Ala Ala Leu Glu Phe His Gly Val Ala
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Gln Asp Leu Ser Gln Gln Leu Asp Gly Leu Leu Gly Met Leu Cys Val
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225              230              235              240
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Glu Lys Gly Gln Gly Leu Leu Asp Gln Ile Ser Asn Gln Ala Ser Xaa
      260              265              270
Gly Pro Met Glu Arg Met Xaa Thr Ile Glu Asn Lys Glu Asn Val Asp
      275              280              285
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385              390              395              400
Thr Leu Pro Arg Leu Asn Arg Val Trp Lys Gln Phe Thr Ile Ala Ser
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Asp Glu Glu Gln Phe Asp Glu Ile Glu Ala Val Gly Lys Ser Leu Leu
450              455              460
Asp Arg Leu Thr Val Pro Val Val Tyr Pro Asp Gly Thr Glu Gln Tyr
465              470              475              480
Phe Gly Ser Pro Ser Asp Met Ala Ser Thr Ala Glu Asn Ile Arg Asp
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Arg Met Lys Leu Val Asn Leu Lys Arg Gln Gln Leu Arg His Pro Glu
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&lt;210&gt; 6053

&lt;211&gt; 3257

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens



&lt;400&gt; 6053

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<211> 382

<212> PRT

<213> Homo sapiens

<400> 6054

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Glu	Pro	Pro	Glu	Pro	Pro	Gln	Glu	Ala	Ala	Glu	Ala	Glu	Lys		
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&lt;210&gt; 6055

&lt;211&gt; 2089

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6055

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&lt;210&gt; 6056

&lt;211&gt; 285

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6056

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Val Ser Lys Arg Lys Cys Ile Val Trp Gly Val Ala Phe Leu Ser Asp
          210          215          220
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225          230          235          240
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Val Gln Ser Ile Ala Val Ala Asp Gln Glu Asp Ser Phe Val Val Gly
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&lt;210&gt; 6057

&lt;211&gt; 3924

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6057

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&lt;210&gt; 6058

&lt;211&gt; 500

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6058

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Val Asn Arg Arg Arg His Asn Ser Ser Asp Gly Phe Asp Ser Ala Ile
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Gly Arg Pro Asn Gly Gly Asn Phe Gly Arg Lys Glu Lys Asn Gly Trp
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Arg Thr His Gly Arg Asn Gly Thr Glu Asn Ile Asn His Arg Gly Gly
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Tyr His Gly Gly Ser Ser Arg Ser Arg Ser Ser Ile Phe His Ala Gly
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      115          120          125
Arg Lys Glu Asp Lys Arg Glu Arg Lys Gln Phe Glu Ala Glu Asp Phe
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145          150          155          160
Leu Ala Ala Gly Val Trp Gly Leu His Ala Gln Thr His Thr Tyr Pro
      165          170          175
Thr Lys Lys Ile Ser Gln Ala Pro Leu Leu Glu Tyr Pro Pro Asn Pro
      180          185          190
Lys Ser Arg Ala Pro Arg Met Leu Val Ile Lys Lys Gly Asn Thr Lys
      195          200          205
Asp Leu Gln Leu Ser Gly Phe Pro Val Val Gly Asn Leu Pro Ser Gln
      210          215          220
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225          230          235          240
Lys Pro Ala Ala Pro Pro Thr Lys Pro Thr Gln Trp Lys Ser Gln Thr
      245          250          255
Lys Glu Asn Lys Val Gly Thr Ser Phe Pro His Glu Ser Thr Phe Gly
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<210> 6060

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<213> Homo sapiens

<400> 6060

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Ile	Ser	Tyr	Thr	Ile	Thr	Ile	Phe	Gly	Asn	Val	Ser	Ile	Met	Met	Val
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Cys	Val	Ala	His	Leu	Ile	Ile	Phe	Leu	Ala	Leu	Gly	Ala	Thr	Glu	Cys
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&lt;211&gt; 1582

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6061

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<211> 226

<212> PRT

<213> Homo sapiens

<400> 6062

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Glu	Asp	Trp	Ile	Glu	Asp	Ala	Ser	Gly	Leu	Met	Ser	His	Cys	Ile	Ala
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<210> 6063

<211> 2286

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6063

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&lt;210&gt; 6064

&lt;211&gt; 233

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6064

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&lt;210&gt; 6065

&lt;211&gt; 2084

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6065

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&lt;210&gt; 6066

&lt;211&gt; 80

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6066

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			20					25					30		
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		35					40					45			
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&lt;210&gt; 6067

&lt;211&gt; 406

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6067

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&lt;210&gt; 6068

&lt;211&gt; 117

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6068

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35          40          45
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50          55          60
Pro Gly Leu Pro Phe Gly Gln Gly Ala Val Ala Arg Ala Ala Pro Cys
65          70          75          80
Pro Ala Tyr Ser His Ser Ala Val Gly Arg Pro Pro Leu Pro Arg Lys
85          90          95
Arg Gly Ala Val Ser Ser Gly Arg Leu His Arg Arg Gly Thr Gly Ala
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115

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&lt;210&gt; 6069

&lt;211&gt; 456

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6069

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180

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<213> Homo sapiens

<400> 6070

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			100					105					110		
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<211> 2633

<212> DNA

<213> Homo sapiens

<400> 6071

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&lt;210&gt; 6072

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6072

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			20					25					30		
Pro	Thr	Trp	Arg	Asn	Pro	Ile	Ser	Thr	Lys	Asn	Thr	Lys	Ile	Asn	Lys
		35				40					45				
Ala	Trp	Trp	Arg	Val	Pro	Val	Val	Pro	Ala	Thr	Arg	Glu	Ala	Glu	Ala
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&lt;210&gt; 6073

&lt;211&gt; 387

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6073

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180



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<211> 69

<212> PRT

<213> Homo sapiens

<400> 6074

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			20					25					30		
Ala	Pro	Thr	Gly	Pro	Phe	Ser	Pro	Arg	Met	Lys	Pro	Ala	Gly	Ser	Val
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<212> DNA

<213> Homo sapiens

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&lt;210&gt; 6076

&lt;211&gt; 601

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6076

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Glu	Asp	Arg	Ile	Gln	Leu	Trp	Lys	Pro	Pro	Tyr	Thr	Glu	Glu	Asn	Lys
			20					25						30	
Glu	Val	Gly	Leu	Ala	Leu	Lys	Asp	Leu	Ala	Lys	Gln	Tyr	Ser	Asp	Arg
		35					40					45			
Leu	Glu	Cys	Cys	Glu	Asn	Glu	Val	Glu	Lys	Val	Ile	Glu	Glu	Ile	Arg
	50					55					60				
Cys	Lys	Ala	Ile	Glu	Arg	Gly	Thr	Gly	Asn	Asp	Asn	Tyr	Arg	Thr	Thr
65					70					75					80
Gly	Ile	Ala	Thr	Ile	Glu	Val	Phe	Leu	Pro	Pro	Arg	Leu	Lys	Lys	Asp
			85						90					95	
Arg	Lys	Asn	Leu	Leu	Glu	Thr	Arg	Leu	His	Ile	Thr	Gly	Arg	Glu	Leu
			100						105					110	
Arg	Ser	Lys	Ile	Ala	Glu	Thr	Phe	Gly	Leu	Gln	Glu	Asn	Tyr	Ile	Lys
		115						120				125			
Ile	Val	Ile	Asn	Lys	Lys	Gln	Leu	Gln	Leu	Gly	Lys	Thr	Leu	Glu	Glu
	130					135					140				
Gln	Gly	Val	Ala	His	Asn	Val	Lys	Ala	Met	Val	Leu	Glu	Leu	Lys	Gln
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Ser	Glu	Glu	Asp	Ala	Arg	Lys	Asn	Phe	Gln	Leu	Glu	Glu	Glu	Glu	Gln

5259

595

600

&lt;210&gt; 6077

&lt;211&gt; 2093

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6077

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 2093

&lt;210&gt; 6078

&lt;211&gt; 213

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6078

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Ser	Gly	Arg	Glu	Gly	Ala	Ser	Gly	Pro	Gly	Val	Gly	Pro	His	Ile	Tyr
		35					40					45			
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	50					55				60					
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65				70				75						80	
Ala	Asp	Pro	Glu	Ala	Asp	Pro	Glu	Glu	Ala	Thr	Ala	Ala	Arg	Val	Ile
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Gly	Ser	Ile	Arg	Lys	Leu	Ala	Ser	Ala	Ser	Leu	Leu	Asp	Thr	Asp	Lys
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Trp	Glu	Gln	Thr	Leu	Pro	Gly	Ser	Ser	Asp	Glu	Glu	Ile	Ser	Asp	Glu
145				150						155				160	
Glu	Gly	Ser	Gly	Asp	Glu	Asp	Ser	Glu	Gly	Leu	Gly	Leu	Glu	Glu	Tyr
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Asp	Glu	Asp	Asp	Leu	Gly	Ala	Ala	Glu	Glu	Gln	Glu	Cys	Gly	Asp	Gln



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 <212> DNA  
 <213> Homo sapiens

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 <213> Homo sapiens

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 35 40 45  
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 50 55 60  
 Ile Asp Ile Phe Pro Val Thr Asn Lys Asp Phe Arg Asp Phe Val Arg  
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 Glu Lys Lys Tyr Arg Thr Glu Ala Glu Met Phe Gly Trp Ser Phe Val  
 85 90 95  
 Phe Glu Asp Phe Val Ser Asp Glu Leu Arg Asn Lys Ala Thr Gln Pro

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Gln	Pro	Ala	Gly	Pro	Gly	Ser	Gly	Ile	Arg	Glu	Arg	Leu	Glu	His	Pro
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Gly	Lys														

&lt;210&gt; 6081

&lt;211&gt; 655

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6081

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655

&lt;210&gt; 6082

&lt;211&gt; 218

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6082

Asp	Asn	Asp	Gln	Glu	Pro	Pro	Tyr	Ser	Met	Ile	Thr	Leu	His	Glu	Met
1			5					10						15	
Ala	Glu	Thr	Asp	Glu	Gly	Trp	Leu	Asp	Val	Val	Gln	Ser	Leu	Ile	Arg
		20						25					30		
Val	Ile	Pro	Leu	Glu	Asp	Pro	Leu	Gly	Pro	Ala	Val	Ile	Thr	Leu	Leu
	35						40					45			
Leu	Asp	Glu	Cys	Pro	Leu	Pro	Thr	Lys	Asp	Ala	Leu	Gln	Lys	Leu	Thr
	50					55					60				
Glu	Ile	Leu	Asn	Leu	Asn	Gly	Glu	Val	Ala	Cys	Gln	Asp	Ser	Ser	His

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65          70          75          80
Pro Ala Lys His Arg Asn Thr Ser Ala Val Leu Gly Cys Leu Ala Glu
          85          90          95
Lys Leu Ala Gly Pro Ala Ser Ile Gly Leu Leu Ser Pro Gly Ile Leu
          100          105          110
Glu Tyr Leu Leu Gln Cys Leu Lys Leu Gln Ser His Pro Thr Val Met
          115          120          125
Leu Phe Ala Leu Ile Ala Leu Glu Lys Phe Ala Gln Thr Ser Glu Asn
          130          135          140
Lys Leu Thr Ile Ser Glu Ser Ser Ile Ser Asp Arg Leu Val Thr Leu
145          150          155          160
Glu Ser Trp Ala Asn Asp Pro Asp Tyr Leu Lys Arg Gln Val Gly Phe
          165          170          175
Cys Ala Gln Trp Ser Leu Asp Asn Leu Phe Leu Lys Glu Gly Arg Gln
          180          185          190
Leu Thr Tyr Glu Lys Val Asn Leu Ser Ser Ile Arg Ala Met Leu Asn
          195          200          205
Ser Asn Asp Val Ser Glu Tyr Leu Lys Ile
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<210> 6083  
 <211> 358  
 <212> DNA  
 <213> Homo sapiens

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<400> 6083
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180
gtagaagaaa caaagctttc aaaagaaaat cagacaagag caaaagaatc tgatttttca
240
gatactctga gtccaagcaa ggaaaaaagc agtgacgaca ctacagacgc ccaaattggat
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358

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<210> 6084  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

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<400> 6084
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20          25          30
Leu Ile Val Glu Gly His Leu Thr Lys Ala Val Glu Glu Thr Lys Leu
35          40          45
Ser Lys Glu Asn Gln Thr Arg Ala Lys Glu Ser Asp Phe Ser Asp Thr
50          55          60
Leu Ser Pro Ser Lys Glu Lys Ser Ser Asp Asp Thr Thr Asp Ala Gln

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2280  
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2307

&lt;210&gt; 6086

&lt;211&gt; 84

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6086

Met	Leu	Gly	Thr	Lys	Gly	Val	Leu	Leu	Ala	Val	Ala	Ser	Leu	Gly	Ser
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Arg	Gly	Ala	Ser	Leu	Cys	Val	Phe	Val	Cys	Val	Cys	Leu	Cys	Val	Arg
			20					25					30		
Ile	Thr	Leu	Gly	Val	Gln	Ala	Ser	Gly	Cys	Val	Cys	Val	Cys	Ala	Cys
			35				40					45			
Val	Cys	Val	Cys	Val	Ser	Val	Cys	Val	Cys	Val	Cys	Val	His	Thr	Gly
	50					55				60					
Gln	Pro	Pro	Tyr	Leu	Pro	Arg	Phe	Ser	Thr	Ala	Tyr	Leu	Phe	Gln	Trp
65				70					75					80	
Asp	Ser	Thr	Val												

&lt;210&gt; 6087

&lt;211&gt; 1506

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6087

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<210> 6088

<211> 326

<212> PRT

<213> Homo sapiens

<400> 6088

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Ser	Arg	Ala	Met	Arg	Gly	Cys	Gln	Leu	Leu	Gly	Leu	Arg	Ser	Ser	Trp
			20				25					30			
Pro	Gly	Asp	Leu	Leu	Ser	Ala	Arg	Leu	Leu	Ser	Gln	Glu	Lys	Arg	Ala
		35				40					45				
Ala	Glu	Thr	His	Phe	Gly	Phe	Glu	Thr	Val	Ser	Glu	Glu	Glu	Lys	Gly
	50					55					60				
Gly	Lys	Val	Tyr	Gln	Val	Phe	Glu	Ser	Val	Ala	Lys	Lys	Tyr	Asp	Val
65				70				75						80	
Met	Asn	Asp	Met	Met	Ser	Leu	Gly	Ile	His	Arg	Val	Trp	Lys	Asp	Leu
			85					90					95		
Leu	Leu	Trp	Lys	Met	His	Pro	Leu	Pro	Gly	Thr	Gln	Leu	Leu	Asp	Met
			100					105					110		
Ala	Gly	Gly	Thr	Gly	Asp	Ile	Ala	Phe	Arg	Phe	Leu	Asn	Tyr	Val	Gln
		115				120						125			
Ser	Gln	His	Gln	Arg	Lys	Gln	Lys	Arg	Gln	Leu	Arg	Ala	Gln	Gln	Asn
	130					135					140				
Leu	Ser	Trp	Glu	Glu	Ile	Ala	Lys	Glu	Tyr	Gln	Asn	Glu	Glu	Asp	Ser
145				150				155						160	
Leu	Gly	Gly	Ser	Arg	Val	Val	Val	Cys	Asp	Ile	Asn	Lys	Glu	Met	Leu
			165					170						175	
Lys	Val	Gly	Lys	Gln	Lys	Ala	Leu	Ala	Gln	Gly	Tyr	Arg	Ala	Gly	Leu
		180						185					190		
Ala	Trp	Val	Leu	Gly	Asp	Ala	Glu	Glu	Leu	Pro	Phe	Asp	Asp	Asp	Lys
		195					200					205			
Phe	Asp	Ile	Tyr	Thr	Ile	Ala	Phe	Gly	Ile	Arg	Asn	Val	Thr	His	Ile
	210					215					220				
Asp	Gln	Ala	Leu	Gln	Glu	Ala	His	Arg	Val	Leu	Lys	Pro	Gly	Gly	Arg
225				230						235				240	
Phe	Leu	Cys	Leu	Glu	Phe	Ser	Gln	Val	Asn	Asn	Pro	Leu	Ile	Ser	Arg
		245						250					255		
Leu	Tyr	Asp	Leu	Tyr	Ser	Phe	Gln	Val	Ile	Pro	Val	Leu	Gly	Glu	Val
		260						265					270		
Ile	Ala	Gly	Asp	Trp	Lys	Ser	Tyr	Gln	Tyr	Leu	Val	Glu	Ser	Ile	Arg
	275					280						285			
Arg	Phe	Pro	Ser	Gln	Glu	Glu	Phe	Lys	Asp	Met	Ile	Glu	Asp	Ala	Gly
	290				295						300				
Phe	His	Lys	Val	Thr	Tyr	Glu	Ser	Leu	Thr	Ser	Gly	Ile	Val	Ala	Ile
305				310						315				320	
His	Ser	Gly	Phe	Lys	Leu										



325

&lt;210&gt; 6089

&lt;211&gt; 4211

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6089

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&lt;210&gt; 6090

&lt;211&gt; 839

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6090

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Glu	Thr	Ser	Gln	Glu	Gln	Glu	Asp	Leu	Phe	Ile	Val	Lys	Val	Glu	Glu
			20					25					30		
Glu	Asp	Cys	Thr	Trp	Met	Gln	Glu	Tyr	Asn	Pro	Pro	Thr	Phe	Glu	Thr

		35					40					45				
Phe	Tyr	Gln	Arg	Phe	Arg	His	Phe	Gln	Tyr	His	Glu	Ala	Ser	Gly	Pro	
	50					55					60					
Arg	Glu	Ala	Leu	Ser	Gln	Leu	Arg	Val	Leu	Cys	Cys	Glu	Trp	Leu	Arg	
65					70					75					80	
Pro	Glu	Leu	His	Thr	Lys	Glu	Gln	Ile	Leu	Glu	Leu	Leu	Val	Leu	Glu	
				85				90						95		
Gln	Phe	Leu	Thr	Ile	Leu	Pro	Glu	Glu	Phe	Gln	Pro	Trp	Val	Arg	Glu	
			100				105						110			
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		115					120					125				
Gln	Arg	Glu	Leu	Glu	Glu	Arg	Arg	Gln	Gln	Ile	Val	Ala	Cys	Pro	Asp	
	130					135					140					
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Ser	Pro	His	Pro	Leu	Thr	Val	Asp	Thr	Gln	Pro	Glu	Gln	Ala	Pro	Gln	
				165				170						175		
Lys	Pro	Arg	Leu	Leu	Glu	Glu	Asn	Ala	Leu	Pro	Val	Leu	Gln	Val	Pro	
			180				185						190			
Ser	Leu	Pro	Leu	Lys	Asp	Ser	Gln	Glu	Leu	Thr	Ala	Ser	Leu	Leu	Ser	
	195						200					205				
Thr	Gly	Ser	Gln	Lys	Leu	Val	Lys	Ile	Glu	Glu	Val	Ala	Asp	Val	Ala	
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Val	Ser	Phe	Ile	Leu	Glu	Glu	Trp	Gly	His	Leu	Asp	Gln	Ser	Gln	Lys	
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Ser	Leu	Tyr	Arg	Asp	Asp	Arg	Lys	Glu	Asn	Tyr	Gly	Ser	Ile	Thr	Ser	
				245				250						255		
Met	Gly	Tyr	Glu	Ser	Arg	Asp	Asn	Met	Glu	Leu	Ile	Val	Lys	Gln	Ile	
		260					265						270			
Ser	Asp	Asp	Ser	Glu	Ser	His	Trp	Val	Ala	Pro	Glu	His	Thr	Glu	Arg	
	275						280					285				
Ser	Val	Pro	Gln	Asp	Pro	Asp	Phe	Ala	Glu	Val	Ser	Asp	Leu	Lys	Gly	
	290					295					300					
Met	Val	Gln	Arg	Trp	Gln	Val	Asn	Pro	Thr	Val	Gly	Lys	Ser	Arg	Gln	
305					310					315					320	
Asn	Pro	Ser	Gln	Lys	Arg	Asp	Leu	Asp	Ala	Ile	Thr	Asp	Ile	Ser	Pro	
			325						330					335		
Lys	Gln	Ser	Thr	His	Gly	Glu	Arg	Gly	His	Arg	Cys	Ser	Asp	Cys	Gly	
			340					345					350			
Lys	Phe	Phe	Leu	Gln	Ala	Ser	Asn	Phe	Ile	Gln	His	Arg	Arg	Ile	His	
		355					360					365				
Thr	Gly	Glu	Lys	Pro	Phe	Lys	Cys	Gly	Glu	Cys	Gly	Lys	Ser	Tyr	Asn	
	370					375					380					
Gln	Arg	Val														

465		470		475		480									
Glu	Ala	Asp	Met	Glu	Leu	Ser	Gly	Lys	Thr	Gln	Arg	Asn	Val	Ser	Gln
		485						490						495	
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		500						505					510		
Lys	Gln	Gly	Ile	Pro	Met	Lys	Glu	Ile	Leu	Gly	Gln	Pro	Ser	Ser	Lys
		515					520					525			
Arg	Met	Asn	Tyr	Ser	Glu	Val	Pro	Tyr	Val	His	Lys	Lys	Ser	Ser	Thr
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		660					665					670			
Tyr	Val	Ser	Leu	Ile	Glu	His	Gln	Val	Leu	His	Met	Gly	Gln	Lys	Asn
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Ile	Glu	Asp	Lys	Lys	Ile	Glu	Leu	Gln	Glu	Gln	Pro	Tyr	Gln	Cys	Asp
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Ser	Thr	Lys	Ser	His	Gln	Cys	His	Glu	Cys	Gly	Arg	Gly	Phe	Thr	Leu
		770				775					780				
Lys	Ser	His	Leu	Asn	Gln	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro
785				790				795						800	
Phe	Gln	Cys	Lys	Glu	Cys	Gly	Met	Asn	Phe	Ser	Trp	Ser	Cys	Ser	Leu
		805						810					815		
Phe	Lys	His	Leu	Arg	Ser	His	Glu	Arg	Thr	Asp	Pro	Ile	Asn	Thr	Leu
		820					825					830			
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&lt;210&gt; 6091

&lt;211&gt; 1336

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6091

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780  
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1336

&lt;210&gt; 6092

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6092

Met Ala Gln Ser Trp Ala Arg Thr Gln Glu Phe Leu Cys Pro Met Cys

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Pro Thr Thr Trp His Ser Arg Gly Gln Gly Arg Ser Pro Ala Ser Gln			
20	25	30	
Thr Pro Asn Trp Tyr Trp Val Leu Gly His Pro Asn Leu Ile Arg Asp			
35	40	45	
Val Thr Arg Gln Val Pro Ser Pro Pro Ser Gly Phe Arg Leu Pro Ser			
50	55	60	
Ser Arg His Glu Gly Pro Ser Pro Pro Arg Asp Leu Gly Thr Ser Gly			
65	70	75	80
Pro Ser Arg Ala Ala Ser His Lys Pro Ser Asn Glu Gln Arg Asp Ala			
85	90	95	
Gly Gln Gln Leu Gln Leu His Leu Leu Pro Ala Leu Lys Gly Ser Phe			
100	105	110	
Pro Ala Ser Val Leu Ser			
115			

&lt;210&gt; 6093

&lt;211&gt; 1998

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6093

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960

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 1998

&lt;210&gt; 6094

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6094

Met	Ile	Met	Ser	Ala	Phe	Arg	Arg	Glu	Ser	Pro	Pro	Thr	Ser	Val	Pro
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Pro	Gln	Met	Gly	Ile	Tyr	Leu	Asp	Leu	Cys	Gly	Ser	Phe	Ser	Ala	Glu
			20					25						30	
Thr	Gly	Pro	Val	Ser	Gln	Ser	Phe	Leu	Gln	Met	Leu	Ile	Gly	Val	Cys
			35				40					45			
Trp	Asn	Pro	Lys	Pro	Leu	Pro	Arg	Leu	Gln	Ala	Pro	Asp	Gly	Leu	Leu
	50				55					60					
Ser	Cys	Asn	Phe	Leu	Gly	Glu	Glu	Thr	Phe	Ser	Ser	Phe	Pro	Phe	Leu
65				70				75					80		
Val	His	Pro	Cys	Thr	Leu	Val	Leu	Ser	Gln	Pro	Leu	Pro	His	Ile	Val

				85						90					95				
Pro	Asp	Ser	Arg	Gly	Thr	Ser	Ser	Leu	His	Arg	Ala	Ala	Ala	Ala	Ala	Gly			
				100															
Leu	Arg	Ala	Glu	Pro	Val	Gly	Ala	Glu	Ala	Leu	Ala	Pro	Glu	Val	Gln				
				115															
Pro	Leu	Ser	Leu	Gly	Pro	Leu	Gly												
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&lt;210&gt; 6095

&lt;211&gt; 441

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6095

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441

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&lt;210&gt; 6096

&lt;211&gt; 97

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6096

Met	Ala	Asp	Val	Glu	Asp	Gly	Glu	Glu	Thr	Cys	Ala	Leu	Ala	Ser	His				
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Ser	Gly	Ser	Ser	Gly	Ser	Lys	Ser	Gly	Gly	Asp	Lys	Met	Phe	Ser	Leu				
				20					25					30					
Lys	Lys	Trp	Asn	Ala	Val	Ala	Met	Trp	Ser	Trp	Asp	Val	Glu	Cys	Asp				
				35				40					45						
Thr	Cys	Ala	Ile	Cys	Arg	Val	Gln	Val	Met	Val	Val	Trp	Gly	Glu	Cys				
				50			55					60							
Asn	His	Ser	Phe	His	Asn	Cys	Cys	Met	Ser	Leu	Trp	Val	Lys	Gln	Asn				
65					70					75					80				
Asn	Arg	Cys	Pro	Leu	Cys	Gln	Gln	Asp	Trp	Val	Val	Gln	Arg	Ile	Gly				
				85					90					95					

Lys

&lt;210&gt; 6097

&lt;211&gt; 2404

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6097

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<211> 631

<212> PRT

<213> Homo sapiens

<400> 6098

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			20					25					30		
Arg	Ser	Gly	Asp	Val	Ile	Glu	Tyr	Leu	Leu	Lys	Asn	Gln	Trp	Phe	Val
		35					40					45			
Arg	Cys	Gln	Glu	Met	Gly	Ala	Arg	Ala	Ala	Lys	Ala	Val	Glu	Ser	Gly
	50					55						60			
Ala	Leu	Glu	Leu	Ser	Pro	Ser	Phe	His	Gln	Lys	Asn	Trp	Gln	His	Trp
65					70					75				80	
Phe	Ser	His	Ile	Gly	Asp	Trp	Cys	Val	Ser	Arg	Gln	Leu	Trp	Trp	Gly
			85						90					95	
His	Gln	Ile	Pro	Ala	Tyr	Leu	Val	Xaa	Xaa	Gly	Pro	Cys	Ala	Xaa	Gly
			100					105					110		
Glu	Glu	Xaa	Thr	Cys	Trp	Val	Val	Gly	Arg	Ser	Gly	Ala	Glu	Ala	Arg

5280

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		565							570					575	
Gln	Leu	Asp	Ser	Leu	Thr	Ala	Arg	Thr	Pro	Ser	Glu	Gly	Glu	Ala	Gly
		580						585					590		
Thr	Gln	Arg	Gln	Gln	Lys	Leu	Ser	Ser	Leu	Gln	Leu	Glu	Leu	Ser	Lys
	595					600					605				
Leu	Asp	Lys	Ala	Ala	Ser	His	Leu	Arg	Gln	Leu	Met	Asp	Glu	Pro	Pro
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625					630										

&lt;210&gt; 6099

&lt;211&gt; 3957

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6099

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&lt;210&gt; 6100

&lt;211&gt; 1102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6100

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Pro	Ala	Ala	Gly	Gln	Pro	Arg	Pro	Pro	Ala	Pro	Ala	Ser	Arg	Gly	Pro

5284

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Phe	Lys	Ala	His	Leu	Glu	Lys	Met	Gly	Asn	Asn	Ser	Ser	Ile	Lys	Gln
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Pro	Pro	His	Tyr	Thr	Thr	Ser	Ala	Leu	Gln	Gln	Ala	Leu	Leu	Ser	Pro
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&lt;210&gt; 6101

&lt;211&gt; 1447

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6101

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<211> 123

<212> PRT

<213> Homo sapiens

<400> 6102

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65				70						75				80	
Arg	Gly	Arg	Ser	Arg	Gln	Ala	Arg	Phe	Ser	Pro	Tyr	Pro	Ile	Pro	Ala
			85						90				95		
Val	Glu	Pro	Asp	Leu	Leu	Arg	Ser	Val	Leu	Gln	Gln	Arg	Leu	Ile	Ala
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<211> 309

<212> DNA

<213> Homo sapiens

<400> 6103

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<212> PRT

<213> Homo sapiens

<400> 6104

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Glu	Glu	Glu	Ile	Val	Ser	Pro	Ser	Asp	Leu	Asp	Leu	Val	Met	Ser	Asp
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<210> 6105

<211> 1846

<212> DNA

<213> Homo sapiens

<400> 6105

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1846

&lt;210&gt; 6106

&lt;211&gt; 405

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens



&lt;400&gt; 6106

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Ala	Ser	Val	Ile	Ser	Ala	Pro	Pro	Ser	Ser	Ser	Ser	Arg	His	Arg	Lys
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Arg	Arg	Arg	Thr	Ser	Ser	Lys	Ser	Glu	Ala	Gly	Ala	Arg	Gly	Gly	Gly
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Gln	Gly	Ser	Lys	Glu	Lys	Gly	Arg	Gly	Ser	Trp	Gly	Gly	Arg	His	His
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His	His	His	Pro	Leu	Pro	Ala	Ala	Gly	Phe	Lys	Lys	Gln	Gln	Arg	Lys
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Phe	Gln	Tyr	Gly	Asn	Tyr	Cys	Lys	Tyr	Tyr	Gly	Tyr	Arg	Asn	Pro	Ser
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Cys	Glu	Asp	Gly	Arg	Leu	Arg	Val	Leu	Lys	Pro	Glu	Trp	Phe	Arg	Gly
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Ile	Ala	Cys	Lys	Trp	Gly	Pro	Ser	Arg	Met	Val	Gly	Leu	Asp	Ile	Asp
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Ser	Arg	Leu	Ile	His	Ser	Ala	Arg	Gln	Asn	Ile	Arg	His	Tyr	Leu	Ser
		195					200					205			
Glu	Glu	Leu	Arg	Leu	Pro	Pro	Gln	Thr	Leu	Glu	Gly	Asp	Pro	Gly	Ala
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Glu	Gly	Glu	Glu	Gly	Thr	Thr	Thr	Val	Arg	Lys	Arg	Ser	Cys	Phe	Pro
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Ala	Ser	Leu	Thr	Ala	Ser	Arg	Gly	Pro	Ile	Ala	Ala	Pro	Gln	Val	Pro
				245					250					255	
Leu	Asp	Gly	Ala	Asp	Thr	Ser	Val	Phe	Pro	Asn	Asn	Val	Val	Phe	Val
			260					265					270		
Thr	Gly	Asn	Tyr	Val	Leu	Asp	Arg	Asp	Asp	Leu	Val	Glu	Ala	Gln	Thr
	275						280					285			
Pro	Glu	Tyr	Asp	Val	Val	Leu	Cys	Leu	Ser	Leu	Thr	Lys	Trp	Val	His
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Leu	Asn	Trp	Gly	Asp	Glu	Gly	Leu	Lys	Arg	Met	Phe	Arg	Arg	Ile	Tyr
305					310					315					320
Arg	His	Leu	Arg	Pro	Gly	Gly	Ile	Leu	Val	Leu	Glu	Pro	Gln	Pro	Trp
				325					330					335	
Ser	Ser	Tyr	Gly	Lys	Arg	Lys	Thr	Leu	Thr	Glu	Thr	Ile	Tyr	Lys	Asn
			340					345					350		
Tyr	Tyr	Arg	Ile	Gln	Leu	Lys	Pro	Glu	Gln	Phe	Ser	Ser	Tyr	Leu	Thr
		355					360					365			
Ser	Pro	Asp	Val	Gly	Phe	Ser	Ser	Tyr	Glu	Leu	Val	Ala	Thr	Pro	His
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Asn	Thr	Ser	Lys	Gly	Phe	Gln	Arg	Pro	Val	Tyr	Leu	Phe	His	Lys	Ala
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Arg	Ser	Pro	Ser	His											
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<210> 6107  
 <211> 896  
 <212> DNA  
 <213> Homo sapiens

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 300  
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 420  
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 896

<210> 6108  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

<400> 6108  
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 Pro Ala Cys Leu Leu Gly Arg Pro Trp Met Ser Arg Arg Cys Ser Arg  
 35 40 45  
 Leu Gly Ser Thr Pro Pro Pro Ala Pro Ala Ser Pro Val Glu Ser Pro  
 50 55 60  
 Arg Pro Ser Pro Ala Ser Ser Ala Phe Ser Ser Leu Pro Ser Asp Gly  
 65 70 75 80  
 Trp Gly Ser Ser Val Gly Ser Gly Leu Pro Trp Pro Ala Thr Arg Trp

	85		90		95										
Ser	Thr	Cys	Pro	Arg	Trp	Arg	Thr	Asp	Val	Ser	Pro	Ala	Asp	Thr	Ile
		100				105							110		
Ala	Pro	Arg	Ser	Trp	Leu	Leu	Pro	Leu	Ser	Ala	Thr				
		115				120									

&lt;210&gt; 6109

&lt;211&gt; 2087

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6109

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1260

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<210> 6110

<211> 323

<212> PRT

<213> Homo sapiens

<400> 6110

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		20						25					30		
Pro	Gly	Ala	Ala	Ala	Gly	Leu	Thr	Leu	Leu	Cys	Ser	Leu	Val	Pro	Ile
		35						40					45		
Cys	Val	Leu	Arg	Arg	Pro	Gly	Ala	Asn	His	Glu	Gly	Ser	Ala	Ser	Arg
		50				55						60			
Gln	Lys	Ala	Leu	Ser	Leu	Val	Ser	Cys	Phe	Ala	Gly	Gly	Val	Phe	Leu
65				70						75				80	
Ala	Thr	Cys	Leu	Leu	Asp	Leu	Leu	Pro	Asp	Tyr	Leu	Ala	Ala	Ile	Asp
			85						90					95	
Glu	Ala	Leu	Ala	Ala	Leu	His	Val	Thr	Leu	Gln	Phe	Pro	Leu	Gln	Glu
		100						105					110		
Phe	Ile	Leu	Ala	Met	Gly	Phe	Phe	Leu	Val	Leu	Val	Met	Glu	Gln	Ile
		115						120					125		
Thr	Leu	Ala	Tyr	Lys	Glu	Gln	Ser	Gly	Pro	Ser	Pro	Leu	Glu	Glu	Thr
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Arg	Ala	Leu	Leu	Gly	Thr	Val	Asn	Gly	Gly	Pro	Gln	His	Trp	His	Asp

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Glu Gly Leu Ala Val Gly Leu Gln Arg Asp Arg Ala Arg Ala Met Glu
          195          200          205
Leu Cys Leu Ala Leu Leu Leu His Lys Gly Ile Leu Ala Val Ser Leu
          210          215          220
Ser Leu Arg Leu Leu Gln Ser His Leu Arg Ala Gln Val Val Ala Gly
225          230          235          240
Cys Gly Ile Leu Phe Ser Cys Met Thr Pro Leu Gly Ile Gly Leu Gly
          245          250          255
Ala Ala Leu Ala Glu Ser Ala Gly Pro Leu His Gln Leu Ala Gln Ser
          260          265          270
Val Leu Glu Gly Met Ala Ala Gly Thr Phe Leu Tyr Ile Thr Phe Leu
          275          280          285
Glu Ile Leu Pro Gln Glu Leu Ala Ser Ser Glu Gln Arg Ile Leu Lys
          290          295          300
Val Ile Leu Leu Leu Ala Gly Phe Ala Leu Leu Thr Gly Leu Leu Phe
305          310          315          320
Ile Gln Ile

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&lt;210&gt; 6111

&lt;211&gt; 1706

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6111

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180
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720

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 1706

&lt;210&gt; 6112

&lt;211&gt; 110

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6112

Met Ser Leu Phe Cys Phe Val Leu Phe Leu Arg Trp Ser Phe Pro Leu  
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 Val Ala Gln Ala Gly Val Xaa Trp His Ser Leu Gly Ser Leu Gln Pro  
 20 25 30  
 Pro Leu Pro Gly Phe Lys Gln Phe Ser Cys Arg Ser Leu Pro Ser Ser  
 35 40 45  
 Trp Asp Tyr Arg His Ala Pro Pro Arg Gln Ala Asn Phe Cys Ile Phe  
 50 55 60  
 Ser Arg Asp Gly Val Ser Pro Cys Trp Pro Gly Trp Ser Gln Thr Pro  
 65 70 75 80  
 Asp Leu Arg Arg Ser Thr His Leu Ser Val Pro Lys Cys Trp Asp Tyr  
 85 90 95  
 Arg Arg Glu Pro Pro His Leu Ala Tyr Glu Trp Ser Phe Asn

100

105

110

&lt;210&gt; 6113

&lt;211&gt; 1095

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6113

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1080  
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1095

&lt;210&gt; 6114

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6114

Met Cys Phe Phe Val Glu Leu Lys Lys Ala Ser Lys Arg Met Thr Cys



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 His Lys Arg Tyr Lys Ile Gln Lys Lys Val Arg Glu His His Arg Lys  
                     20                      25                      30  
 Leu Arg Lys Glu Ala Lys Lys Arg Gly His Lys Lys Pro Arg Lys Asp  
                     35                      40                      45  
 Pro Gly Val Pro Asn Ser Ala Pro Phe Lys Glu Ala Leu Leu Glu Glu  
                     50                      55                      60  
 Ala Glu Leu Arg Lys Gln Arg Leu Glu Glu Leu Lys Gln Gln Gln Lys  
 65                      70                      75                      80  
 Leu Asp Arg Gln Lys Glu Leu  
                     85

&lt;210&gt; 6115

&lt;211&gt; 411

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6115

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 411

&lt;210&gt; 6116

&lt;211&gt; 129

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6116

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 Leu Pro Ile Ser Ser Leu Glu Thr Arg His Ala Gln Asn Pro Gly Gly  
                     20                      25                      30  
 Gln Val Lys Thr Pro Thr Leu Gln Val Arg Gly Ala Ser Ala Leu Ala  
                     35                      40                      45  
 Pro Gln Phe Pro Gln Arg Asn Arg Leu Leu Ala Ser Arg Val Gly Tyr  
                     50                      55                      60  
 Arg Val Ser Val Leu His Gly Ile Tyr Glu Asp Val Pro Pro Lys Leu  
 65                      70                      75                      80  
 Leu Pro Pro Pro Pro Trp Asp Ala Thr Val Arg Pro Ala Asp Glu Phe  
                     85                      90                      95  
 Leu Pro Gln Arg Pro Arg Glu Gly Gly Leu Arg Ala Ala Ala Ala Ala  
                     100                      105                      110  
 Thr Gly Gly Glu Ala Ser Ala Gly Asn Leu Gly Pro Gly Gly Ala Arg

115 120 125  
Arg

<210> 6117  
<211> 962  
<212> DNA  
<213> Homo sapiens

<400> 6117  
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962

<210> 6118  
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<212> PRT  
<213> Homo sapiens

<400> 6118  
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	35		40		45										
Thr	Cys	Ala	Ile	Cys	Arg	Val	Gln	Val	Met	Asp	Ala	Cys	Leu	Arg	Cys
	50		55		60										
Gln	Ala	Glu	Asn	Lys	Gln	Glu	Asp	Cys	Val	Val	Val	Trp	Gly	Glu	Cys
65			70		75									80	
Asn	His	Ser	Phe	His	Asn	Cys	Cys	Met	Ser	Leu	Trp	Val	Lys	Gln	Asn
			85		90									95	
Asn	Arg	Cys	Pro	Leu	Cys	Gln	Gln	Asp	Trp	Val	Val	Gln	Arg	Ile	Gly
	100		105		110										

Lys

&lt;210&gt; 6119

&lt;211&gt; 375

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6119

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360

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375

&lt;210&gt; 6120

&lt;211&gt; 118

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6120

Met Gly Lys Leu Asp Thr Ala Pro Trp Thr Cys Pro Thr Asp Pro His  
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20 25 30Gln Arg Gly Pro Thr Glu Leu Met Pro Ala Cys Phe Lys Pro Thr Asn  
35 40 45Glu Asn Ser Pro Trp Glu Thr Cys Leu Asp Asn Thr Leu Asp Pro Asn  
50 55 60Lys Cys Phe Asn Pro Thr Ser Pro Leu Ser Leu Pro Leu Ser Cys Pro  
65 70 75 80Tyr Pro Leu Val Glu His Val Cys Pro Lys Arg Pro Cys Lys Val Cys  
85 90 95

Cys Pro Val Leu Ser Gly Leu Cys Gln Gly Ile Lys Leu Leu Leu Leu

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105

110

<210> 6121  
<211> 1039  
<212> DNA  
<213> Homo sapiens

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<210> 6122  
<211> 221  
<212> PRT  
<213> Homo sapiens

<400> 6122  
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Cys His Ile Cys Phe Glu Leu Asn Ile Glu Gly Val Pro Lys Ser Asp
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Leu Leu His Thr Lys Ser Leu Arg Gly His Lys Asp Cys Phe Glu Lys
      50           55           60
Tyr His Leu Ile Ala Asn Gln Gly Cys Pro Arg Ser Lys Leu Ser Lys
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Ser Thr Tyr Glu Glu Val Lys Thr Ile Leu Ser Lys Lys Ile Asn Trp
      85           90           95
Ile Val Gln Tyr Ala Gln Asn Lys Asp Leu Asp Ser Asp Ser Glu Cys
      100          105          110
Ser Lys Lys Pro Gln His His Leu Phe Asn Phe Arg His Lys Pro Glu
      115          120          125
Glu Lys Leu Leu Pro Gln Phe Glu Ser Gln Val Pro Lys Tyr Ser Ala
      130          135          140
Lys Trp Ile Asp Gly Ser Ala Gly Gly Ile Ser Asn Cys Thr Gln Arg
      145          150          155          160
Ile Leu Glu Gln Arg Glu Asn Thr Asp Phe Gly Leu Ser Met Leu Gln
      165          170          175
Asp Ser Gly Ala Thr Leu Cys Arg Asn Ser Val Leu Trp Pro His Ser
      180          185          190
His Asn Gln Ala Gln Lys Lys Glu Glu Thr Ile Ser Ser Pro Glu Ala
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Asn Val Gln Thr Gln His Pro His Tyr Ser Arg Glu Glu
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&lt;210&gt; 6123

&lt;211&gt; 900

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6123

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600

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<210> 6124

<211> 300

<212> PRT

<213> Homo sapiens

<400> 6124

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		20						25					30		
Cys	Thr	Pro	Ala	Trp	Ala	Thr	Arg	Ala	Lys	Gln	Gln	Glu	Lys	Lys	Lys
		35					40					45			
Glu	Ala	Ala	Leu	Cys	Pro	Lys	Pro	Thr	Ser	Arg	Ser	Pro	Asn	Leu	Gly
	50					55					60				
Pro	Leu	Gly	Leu	Phe	Ser	Leu	Ser	Val	Pro	Asn	Leu	Leu	Leu	Ala	Gly
65					70					75					80
Asn	Lys	Pro	Pro	Gly	Leu	Leu	Pro	Arg	Lys	Gly	Leu	Tyr	Met	Ala	Asn
				85					90					95	
Asp	Leu	Lys	Leu	Leu	Arg	His	His	Leu	Gln	Ile	Pro	Ile	His	Phe	Pro
			100					105					110		
Lys	Asp	Phe	Leu	Ser	Val	Met	Leu	Glu	Lys	Gly	Ser	Leu	Ser	Ala	Met
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Ala	Ser	Arg	Glu	Leu	Trp	Met	Arg	Val	Trp	Ser	Arg	Val	Ser	Val	Gly
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Leu	Trp	Glu	Ser	Ser	Gly	Arg	Thr	Leu	Asp	Asp	Phe	Leu	Thr	Phe	Pro
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Arg	His	Val	Phe	Arg	Val	Met	Ile	Leu	Pro	Pro	Pro	Gly	Gly	Ser	Thr
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Val	Leu	Pro	Val	Thr	Pro	Leu	Ser	Pro	His	Arg	Leu	Pro	Ala	Val	Phe
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Ser	Ser	Ser	Gln	Asn	Glu	Asp	Ile	Thr	Glu	Pro	Gln	Ser	Ile	Leu	Ala
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Ala	Ala	Glu	Lys	Ala	Gly	Met	Ser	Ala	Glu	Gln	Ala	Gln	Gly	Leu	Leu
225					230					235					240
Glu	Lys	Ile	Ala	Thr	Pro	Lys	Val	Lys	Asn	Gln	Leu	Lys	Glu	Thr	Thr
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			260					265					270		
His	Val	Asp	Gly	Gln	Thr	His	Met	Leu	Phe	Gly	Ser	Asp	Arg	Met	Glu
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 <211> 468  
 <212> DNA  
 <213> Homo sapiens

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 <211> 156  
 <212> PRT  
 <213> Homo sapiens

<400> 6126  
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 35 40 45  
 Gln Ile Ala Glu Thr Lys Ala Arg Leu Ile Thr Gln Gln His Asp Arg  
 50 55 60  
 Ala Gln Glu Gln Ser Asp His Ala Leu Met Leu Arg Glu Leu Gln Lys  
 65 70 75 80  
 Leu Leu Gln Glu Glu Arg Thr Gln Arg Gln Asp Leu Glu Leu Arg Leu  
 85 90 95  
 Glu Glu Thr Arg Glu Ala Leu Ala Gly Arg Ala Tyr Ala Ala Glu Gln  
 100 105 110  
 Met Glu Gly Phe Glu Leu Gln Thr Lys Gln Leu Thr Arg Glu Val Glu  
 115 120 125  
 Glu Leu Lys Ser Glu Leu Gln Ala Ile Arg Asp Glu Lys Asn Gln Pro  
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 Asp Pro Arg Leu Gln Glu Leu Gln Glu Glu Ala Ala  
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<210> 6127  
 <211> 1900



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6127

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<210> 6128

<211> 530

<212> PRT

<213> Homo sapiens

<400> 6128

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Ala	Ser	Leu	Ala	Asp	Arg	Ala	Ser	Arg	Ala	Arg	Asp	Ser	Asn	Met	Val
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Arg	Ala	Ala	Ala	Glu	Leu	Ala	Leu	Ser	Cys	Leu	Pro	His	Ala	His	Ala
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Leu	Asn	Pro	Asn	Glu	Ile	Gln	Arg	Ala	Leu	Val	Gln	Cys	Lys	Glu	Gln
65				70					75					80	
Asp	Asn	Leu	Met	Leu	Glu	Lys	Ala	Cys	Met	Ala	Val	Glu	Glu	Ala	Ala
			85					90					95		
Lys	Gly	Gly	Gly	Val	Tyr	Pro	Glu	Val	Leu	Phe	Glu	Val	Ala	His	Gln
			100					105					110		
Trp	Phe	Trp	Leu	Tyr	Glu	Gln	Thr	Ala	Gly	Gly	Ser	Ser	Thr	Ala	Arg
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Glu	Gly	Ala	Thr	Ser	Cys	Ser	Ala	Ser	Gly	Ile	Arg	Ala	Gly	Gly	Glu
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Ala	Gly	Arg	Gly	Met	Pro	Glu	Gly	Arg	Gly	Gly	Pro	Gly	Thr	Glu	Pro
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Val	Thr	Val	Ala	Ala	Ala	Ala	Val	Thr	Ala	Ala	Ala	Thr	Val	Val	Pro
			165					170					175		
Val	Ile	Ser	Val	Gly	Ser	Ser	Leu	Tyr	Pro	Gly	Pro	Gly	Leu	Gly	His
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Gly	His	Ser	Pro	Gly	Leu	His	Pro	Tyr	Thr	Ala	Leu	Gln	Pro	His	Leu
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			245					250					255		
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Val Ser Ser Val His Pro Ala Ser Thr Phe Pro Ala Ile Gln Gly Ala
305                310                315                320
Ser Leu Pro Ala Leu Thr Thr Gln Pro Ser Pro Leu Val Ser Gly Gly
                325                330                335
Phe Pro Pro Pro Glu Glu Glu Thr His Ser Gln Pro Val Asn Pro His
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Ser Leu His His Leu His Ala Ala Tyr Arg Val Gly Met Leu Ala Leu
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Glu Met Leu Gly Arg Arg Ala His Asn Asp His Pro Asn Asn Phe Ser
370                375                380
Arg Ser Pro Pro Tyr Thr Asp Asp Val Lys Trp Leu Leu Gly Leu Ala
385                390                395                400
Ala Lys Leu Gly Val Asn Tyr Val His Gln Phe Cys Val Gly Ala Ala
                405                410                415
Lys Gly Val Leu Ser Pro Phe Val Leu Gln Glu Ile Val Met Glu Thr
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Leu Gln Arg Leu Ser Pro Ala His Ala His Asn His Leu Arg Ala Pro
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Ala Phe His Gln Leu Val Gln Arg Cys Gln Gln Ala Tyr Met Gln Tyr
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Ile His His Arg Leu Ile His Leu Thr Pro Ala Asp Tyr Asp Asp Phe
465                470                475                480
Val Asn Ala Ile Arg Ser Ala Arg Ser Ala Phe Cys Leu Thr Pro Met
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Gly Met Met Gln Phe Asn Asp Ile Leu Gln Asn Leu Lys Arg Ser Lys
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Ser Pro
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&lt;210&gt; 6129

&lt;211&gt; 2012

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6129

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2012

<210> 6130

<211> 364

<212> PRT

<213> Homo sapiens

<400> 6130

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&lt;210&gt; 6131

&lt;211&gt; 3526

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6131

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&lt;210&gt; 6132

&lt;211&gt; 167

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6132

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&lt;210&gt; 6133

&lt;211&gt; 4156

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6133

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<211> 595

<212> PRT

<213> Homo sapiens

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5315

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 35          40          45
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<213> Homo sapiens

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Trp Pro His Glu Ala Ala Ser Ser Ser Gln Arg Arg Gln Pro Pro Pro  
165 170 175  
Gly Ala Ala His Pro Leu Asn Arg Lys Ser Leu Leu Ala Pro Gly Ser  
180 185 190  
Gly Ser Gly Gly Ala Ser Pro Leu Thr Ser Ala Gln Asp Ser Ala Phe  
195 200 205  
Leu Asn Asp Ala Asp Met Val Met Ser Phe Val Asn Leu Val Glu Tyr  
210 215 220  
Asp Lys Glu Phe Ser Pro Arg Gln Arg His His Lys Glu Phe Lys Phe  
225 230 235 240  
Asn Leu Ser Gln Ile Pro Glu Gly Gly Val Val Thr Ala Ala Glu Phe  
245 250 255  
Arg Ile Tyr Lys Asp Cys Val Met Gly Ser Phe Lys Asn Gln Thr Phe  
260 265 270  
Leu Ile Ser Ile Tyr Gln Val Leu Gln Glu His Gln His Arg Asp Ser  
275 280 285  
Asp Leu Phe Leu Leu Asp Thr Arg Val Val Trp Ala Ser Glu Glu Gly  
290 295 300  
Trp Leu Glu Phe Asp Ile Thr Ala Thr Ser Asn Leu Trp Val Val Thr  
305 310 315 320  
Pro Gln His Asn Met Gly Leu Gln Leu Ser Val Val Thr Arg Asp Gly  
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780

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1137

<210> 6144

<211> 141

<212> PRT

<213> Homo sapiens

<400> 6144

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Ser	Thr	Glu	Ser	Leu	Thr	Leu	His	Pro	Arg	Val	Leu	Pro	Leu	Trp	Asn
			20					25					30		
Ser	Gly	Ser	Arg	Gln	Ala	Trp	Val	His	Pro	Pro	Ala	Gln	Pro	Arg	Thr
		35					40					45			
Ala	Gly	Pro	Glu	Leu	Gly	Gly	Gln	Gly	Ile	Pro	Ser	Pro	Gly	Cys	Ala
	50					55					60				
Cys	Gln	Arg	Gly	Glu	Ala	Gly	Gly	Gly	Gly	Asn	Ala	Val	Leu	Pro	Gln
65					70					75					80
Glu	Ser	Val	Leu	Arg	Ala	Ser	Ala	Val	Gly	Arg	Gly	Ala	Glu	Gly	Pro
				85					90				95		
Gly	Ala	Leu	Thr	Arg	Ser	Gly	Ser	Gly	Ala	Ala	Ser	Ala	Leu	Val	Arg
			100					105					110		
Pro	Gly	Glu	Lys	Gly	Cys	Trp	Cys	Arg	Thr	Ala	Ser	Gly	Ala	Gly	Pro
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<210> 6145

<211> 766

<212> DNA

<213> Homo sapiens

<400> 6145

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120  
cagcagcaag tgaagcagcc ttgtcagcca cccctgttta aatgtcaaga gacatgtgca  
180  
cccaaaacca aggatccatg tgctccccag gtcaagaagc aatgcccacc gaaagacacc  
240  
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300

taaggatgga ctggatatta ccatcatcca ccatectggc taccagatgg aaccttctct  
 360  
 tcttccttct cctcttccct ccagctcttg agcctaccct cctctcacat ctctctctgc  
 420  
 ccaagatgta aggaagcatt gtaaggattt cttcccatcg tacccttccc cacacatacc  
 480  
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 540  
 attctctgca ggctccagcg tggccacagc taaggcccat ccatttccca aagtgaggaa  
 600  
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 660  
 agtttctgcc tcattcctct ccatgatgcc cctgctctg ggcttctctc ctgttttccc  
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 766

<210> 6146

<211> 100

<212> PRT

<213> Homo sapiens

<400> 6146

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Ser	Pro	Val	Pro	Arg	Ala	Met	Ser	Ser	Gln	Gln	Gln	Gln	Arg	Gln	Ala
			20					25					30		
Ala	Val	Pro	Thr	Pro	Glu	Ala	Gln	Gln	Gln	Gln	Val	Lys	Gln	Pro	Cys
		35				40					45				
Gln	Pro	Pro	Pro	Val	Lys	Cys	Gln	Glu	Thr	Cys	Ala	Pro	Lys	Thr	Lys
	50					55					60				
Asp	Pro	Cys	Ala	Pro	Gln	Val	Lys	Lys	Gln	Cys	Pro	Pro	Lys	Asp	Thr
65					70					75				80	
Ile	Ile	Pro	Ala	Gln	Gln	Lys	Cys	Pro	Ser	Ala	Gln	Gln	Ala	Ser	Lys
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Ser	Lys	Gln	Lys												
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<210> 6147

<211> 1852

<212> DNA

<213> Homo sapiens

<400> 6147

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 120  
 acatagttct ctgtaaaact gacttacttt ccaaataat tttgaaataa aacaatataa  
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 aagcaaagtg atattcaaaa tttaaataa gagagaatct tagctttaca gctttgtggg  
 300

tggataaaga aaggaacgga tgtagacgtg gggccatttt tgaactccct tgtacaagaa  
360  
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420  
caaatcctga atgaaggggc atcttctgaa aaaggagatc tgaatctcaa tgtggtagca  
480  
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540  
ctgcgattac agctaaataa cccgtatttg tgtgtcatgt ttgcatttct gacaagtga  
600  
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660  
tttgcttgta aattccttag tgatactcag ttaaatagat acatcgaaaa gttgaccaat  
720  
gaaatgaaag aggctggaaa tttggaagga attttgctta caggccttac taaagatgga  
780  
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900  
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cacaggagta agttggatcc cagttccaag cctttagcac aagtttttgt gagttgcaat  
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1200  
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1260  
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1320  
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1440  
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1560  
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1740  
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1852

&lt;210&gt; 6148

&lt;211&gt; 410

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6148

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Asp Ile Gln Asn Leu Asn Glu Glu Arg Ile Leu Ala Leu Gln Leu Cys
          20          25          30
Gly Trp Ile Lys Lys Gly Thr Asp Val Asp Val Gly Pro Phe Leu Asn
          35          40          45
Ser Leu Val Gln Glu Gly Glu Trp Glu Arg Ala Ala Ala Val Ala Leu
          50          55          60
Phe Asn Leu Asp Ile Arg Arg Ala Ile Gln Ile Leu Asn Glu Gly Ala
65          70          75          80
Ser Ser Glu Lys Gly Asp Leu Asn Leu Asn Val Val Ala Met Ala Leu
          85          90          95
Ser Gly Tyr Thr Asp Glu Lys Asn Ser Leu Trp Arg Glu Met Cys Ser
          100          105          110
Thr Leu Arg Leu Gln Leu Asn Asn Pro Tyr Leu Cys Val Met Phe Ala
          115          120          125
Phe Leu Thr Ser Glu Thr Gly Ser Tyr Asp Gly Val Leu Tyr Glu Asn
          130          135          140
Lys Val Ala Val Arg Asp Arg Val Ala Phe Ala Cys Lys Phe Leu Ser
145          150          155          160
Asp Thr Gln Leu Asn Arg Tyr Ile Glu Lys Leu Thr Asn Glu Met Lys
          165          170          175
Glu Ala Gly Asn Leu Glu Gly Ile Leu Leu Thr Gly Leu Thr Lys Asp
          180          185          190
Gly Val Asp Leu Met Glu Ser Tyr Val Asp Arg Thr Gly Asp Val Gln
          195          200          205
Thr Ala Ser Tyr Cys Met Leu Gln Gly Ser Pro Leu Asp Val Leu Lys
          210          215          220
Asp Glu Arg Val Gln Tyr Trp Ile Glu Asn Tyr Arg Asn Leu Leu Asp
225          230          235          240
Ala Trp Arg Phe Trp His Lys Arg Ala Glu Phe Asp Ile His Arg Ser
          245          250          255
Lys Leu Asp Pro Ser Ser Lys Pro Leu Ala Gln Val Phe Val Ser Cys
          260          265          270
Asn Phe Cys Gly Lys Ser Ile Ser Tyr Ser Cys Ser Ala Val Pro His
          275          280          285
Gln Gly Arg Gly Phe Ser Gln Tyr Gly Val Ser Gly Ser Pro Thr Lys
          290          295          300
Ser Lys Val Thr Ser Cys Pro Gly Cys Arg Lys Pro Leu Pro Arg Cys
305          310          315          320
Ala Leu Cys Leu Ile Asn Met Gly Thr Pro Val Ser Ser Cys Pro Gly
          325          330          335
Gly Thr Lys Ser Asp Glu Lys Val Asp Leu Ser Lys Asp Lys Lys Leu
          340          345          350
Ala Gln Phe Asn Asn Trp Phe Thr Trp Cys His Asn Cys Arg His Gly
          355          360          365
Gly His Ala Gly His Met Leu Ser Trp Phe Arg Asp His Ala Glu Cys
          370          375          380
Pro Val Ser Ala Cys Thr Cys Lys Cys Met Gln Leu Asp Thr Thr Gly

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[illegible]

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 1440  
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 1800  
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 1860  
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 1920  
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 1949

&lt;210&gt; 6150

&lt;211&gt; 508

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6150

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			20					25					30		
Lys	Val	Ser	Leu	Thr	Lys	Thr	Pro	Lys	Leu	Glu	Arg	Gly	Asp	Gly	Gly
		35					40					45			
Lys	Glu	Val	Arg	Glu	Arg	Ala	Ser	Lys	Arg	Lys	Leu	Pro	Phe	Thr	Ala
	50					55					60				
Gly	Ala	Asn	Gly	Glu	Gln	Lys	Asp	Ser	Asp	Thr	Glu	Lys	Gln	Gly	Pro
65					70				75					80	
Glu	Arg	Lys	Arg	Ile	Lys	Lys	Glu	Pro	Val	Thr	Arg	Lys	Ala	Gly	Leu
			85					90						95	
Leu	Phe	Gly	Met	Gly	Leu	Ser	Gly	Ile	Arg	Ala	Gly	Tyr	Pro	Leu	Ser
			100					105					110		
Glu	Arg	Gln	Gln	Val	Ala	Leu	Leu	Met	Gln	Met	Thr	Ala	Glu	Glu	Ser
		115					120					125			
Ala	Asn	Ser	Pro	Val	Asp	Thr	Thr	Pro	Lys	His	Pro	Ser	Gln	Ser	Thr
	130					135					140				
Val	Cys	Gln	Lys	Gly	Thr	Pro	Asn	Ser	Ala	Ser	Lys	Thr	Lys	Asp	Lys
145					150				155					160	
Leu	Asn	Lys	Arg	Asn	Glu	Arg	Gly	Glu	Thr	Arg	Leu	His	Arg	Ala	Ala
			165					170						175	
Ile	Arg	Gly	Asp	Ala	Arg	Arg	Ile	Lys	Glu	Leu	Ile	Ser	Glu	Gly	Ala
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<210> 6151
<211> 648
<212> DNA
<213> Homo sapiens
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240
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120
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180
tcccagagaca agactgtccg catctgggta cccaatgtca aaggtgagtc cactgtgttt
240
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1810

<210> 6154  
 <211> 388  
 <212> PRT  
 <213> Homo sapiens

<400> 6154

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			20					25					30		
Ser	Arg	Ala	Tyr	Arg	Phe	Thr	Gly	His	Lys	Asp	Ala	Val	Thr	Cys	Val
		35					40					45			
Asn	Phe	Ser	Pro	Ser	Gly	His	Leu	Leu	Ala	Ser	Gly	Ser	Arg	Asp	Lys
	50					55					60				
Thr	Val	Arg	Ile	Trp	Val	Pro	Asn	Val	Lys	Gly	Glu	Ser	Thr	Val	Phe
65					70					75					80
Arg	Ala	His	Thr	Ala	Thr	Val	Arg	Ser	Val	His	Phe	Cys	Ser	Asp	Gly
				85					90					95	
Gln	Ser	Phe	Val	Thr	Ala	Ser	Asp	Asp	Lys	Thr	Val	Lys	Val	Trp	Ala
			100					105					110		
Thr	His	Arg	Gln	Lys	Phe	Leu	Phe	Ser	Leu	Ser	Gln	His	Ile	Asn	Trp
			115				120					125			
Val	Arg	Cys	Ala	Lys	Phe	Ser	Pro	Asp	Gly	Arg	Leu	Ile	Val	Ser	Ala
	130					135					140				
Ser	Asp	Asp	Lys	Thr	Val	Lys	Leu	Trp	Asp	Lys	Ser	Ser	Arg	Glu	Cys
145					150					155					160
Val	His	Ser	Tyr	Cys	Glu	His	Gly	Gly	Phe	Val	Thr	Tyr	Val	Asp	Phe
				165					170					175	
His	Pro	Ser	Gly	Thr	Cys	Ile	Ala	Ala	Ala	Gly	Met	Asp	Asn	Thr	Val
			180					185					190		
Lys	Val	Trp	Asp	Val	Arg	Thr	His	Arg	Leu	Leu	Gln	His	Tyr	Gln	Leu
		195					200					205			
His	Ser	Ala	Ala	Val	Asn	Gly	Leu	Ser	Phe	His	Pro	Ser	Gly	Asn	Tyr
	210					215					220				
Leu	Ile	Thr	Ala	Ser	Ser	Asp	Ser	Thr	Leu	Lys	Ile	Leu	Asp	Leu	Met
225					230					235					240
Glu	Gly	Arg	Leu	Leu	Tyr	Thr	Leu	His	Gly	His	Gln	Gly	Pro	Ala	Thr
			245						250					255	
Thr	Val	Ala	Phe	Ser	Arg	Thr	Gly	Glu	Tyr	Phe	Ala	Ser	Gly	Gly	Ser
			260					265					270		
Asp	Glu	Gln	Val	Met	Val	Trp	Lys	Ser	Asn	Phe	Asp	Ile	Val	Asp	His
		275					280					285			
Gly	Glu	Val	Thr	Lys	Val	Pro	Arg	Pro	Pro	Ala	Thr	Leu	Ala	Ser	Ser
	290					295					300				
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Trp	Ser	Val	Glu	Ser	Val	Gln	Ser	Gln	Pro	Gln	Glu	Pro	Val	Ser	Val
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Pro	Gln	Thr	Leu	Thr	Ser	Thr	Leu	Glu	His	Ile	Val	Gly	Gln	Leu	Asp
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Val	Leu	Thr	Gln	Thr	Val	Ser	Ile	Leu	Glu	Gln	Arg	Leu	Thr	Leu	Thr
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<210> 6155  
 <211> 995  
 <212> DNA  
 <213> Homo sapiens

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 aataacagcg atttattatt aaggaaatga tacgcttttg tcccattcaa ataatgtttt  
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<210> 6156  
 <211> 164  
 <212> PRT  
 <213> Homo sapiens

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Asp	Leu	Thr	Ala	Ile	Cys	Asp	Ala	Ser	Glu	Ala	Cys	Val	Asn	Ala	Leu				
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Lys	Leu	Leu	Val	Ser	Leu	Trp	Lys	Arg	Ser	Gln	Pro	Cys	Glu	Val	Pro				
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Ser	Pro	Pro	Leu	Ile	Phe	Pro	Val	Cys	Asp	Ile	Ile	Val	Tyr	Pro	Pro				
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&lt;210&gt; 6157

&lt;211&gt; 2135

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6157

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&lt;210&gt; 6158

&lt;211&gt; 455

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6158

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450

455

&lt;210&gt; 6159

&lt;211&gt; 4310

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6159

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&lt;210&gt; 6160

&lt;211&gt; 551

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6160

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His	Glu	Asp	Val	Cys	Val	Phe	Lys	Cys	Ser	Val	Ser	Arg	Glu	Thr	Glu

5345



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465	470	475	480	
Leu Ala Asn Thr Gly Ile Val Asn His Thr His	Ser Arg Met Gly Ser			
	485	490	495	
Ile Met Ser Thr Gly Ile Val Gln Gly Ser Ser	Gly Ala Gln Gly Ser			
	500	505	510	
Gly Gly Gly Ser Thr Ser Ala His Tyr Ala Val	Asn Ser Gln Phe Thr			
	515	520	525	
Met Gly Gly Pro Ala Ile Ser Met Ala Ser Pro	Met Ser Ile Pro Thr			
	530	535	540	
Asn Thr Met His Tyr Gly Ser				
545	550			

&lt;210&gt; 6161

&lt;211&gt; 1489

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6161

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1020

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 1140  
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 1260  
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 1320  
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 1380  
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<210> 6162

<211> 58

<212> PRT

<213> Homo sapiens

<400> 6162

Gly	Cys	Met	Ile	Phe	Ser	Arg	Phe	Ser	Thr	Glu	Gly	Ser	Glu	Leu	Trp
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Glu	Arg	Lys	Glu	Asp	Gly	Gly	Asn	Gly	Lys	Lys	Arg	Ser	Thr	Leu	Leu
		20					25						30		
Arg	Lys	Gly	Thr	Glu	Pro	Gly	Val	Val	Ala	His	Ala	Cys	Asn	Pro	Xaa
		35					40						45		
Thr	Leu	Gly	Gly	Arg	Ser	Lys	Glu	Ile	Thr						
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<210> 6163

<211> 713

<212> DNA

<213> Homo sapiens

<400> 6163

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 120  
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 180  
 gggcccagcc tctgccagga aaagcaggcc tggctctgct gaaaccccaa tcacgctctg  
 240  
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 300  
 gtacgagaag gtgcatgcgg ggatttcggc tgcctgaaaa gcaaccctct aaaaccgag  
 360  
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 420  
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 480

agaaagtcac aactccctca caggcatcag ggtgcaactt tgaatgccaa gaggggctgt  
 540  
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 600  
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<210> 6164

<211> 120

<212> PRT

<213> Homo sapiens

<400> 6164

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Ala	Gly	Arg	Leu	Lys	Gln	Asn	Leu	Gln	Glu	Lys	Ser	Lys	Gly	Ala	Gln
			20					25					30		
Pro	Leu	Pro	Gly	Lys	Ala	Gly	Leu	Ala	Leu	Leu	Lys	Pro	Gln	Ser	Arg
		35					40					45			
Ser	Asp	Gly	Tyr	Arg	Tyr	Leu	Gly	Lys	Asp	Thr	Val	Asp	Gly	Leu	Asp
	50					55					60				
Ser	Ser	Leu	Leu	Lys	Cys	Thr	Arg	Arg	Cys	Met	Arg	Gly	Phe	Arg	Leu
65					70				75					80	
Pro	Glu	Lys	Gln	Pro	Ser	Lys	Thr	Arg	Val	Ser	Phe	Leu	Glu	Ser	Lys
			85					90					95		
Arg	Lys	Glu	Gly	Ser	Gly	Trp	Leu	His	Trp	Ser	Val	Thr	Arg	Ser	Gly
			100				105						110		
Ala	Phe	Arg	Leu	Lys	Val	Thr	Val								
			115				120								

<210> 6165

<211> 1004

<212> DNA

<213> Homo sapiens

<400> 6165

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 120  
 atccagcggc tgcgggacac ggaagagatg ttaagcaaga aacaggagtt cctggagaag  
 180  
 aaaatcgagc aggagctgac ggccgccaag aagcacggca ccaaaaacaa gcgcgcggcc  
 240  
 ctccaggcac tgaagcgtaa gaagaggtat gagaagcagc tggcgcagat cgacggcaca  
 300  
 ttatcaacca tcgagttcca gcgggaggcc ctggagaatg ccaacaccaa caccgaggtg  
 360  
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 420  
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 480

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540  
gcggaattag aagaactaga acaggaggaa ctagacaaga atttgctgga aatcagtgga  
600  
cccgaaacag tccctctacc aaatgttccc tctatagccc taccatcaaa acccgccaag  
660  
aagaaagaag aggaggacga cgacatgaag gaattggaga actgggctgg atccatgtaa  
720  
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780  
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840  
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900  
gttggccggg gggagggggg cgagcgggct ggcacgtgcc tgctgtttat aatgttgaat  
960  
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1004

&lt;210&gt; 6166

&lt;211&gt; 239

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6166

Pro	Ser	Arg	Ile	Gly	Arg	Arg	Arg	Pro	Ala	Arg	Arg	Ala	Ala	Thr	Met
1				5					10					15	
Ser	Val	Phe	Gly	Lys	Leu	Phe	Gly	Ala	Gly	Gly	Gly	Lys	Ala	Gly	Lys
			20					25					30		
Gly	Gly	Pro	Thr	Pro	Gln	Glu	Ala	Ile	Gln	Arg	Leu	Arg	Asp	Thr	Glu
		35					40					45			
Glu	Met	Leu	Ser	Lys	Lys	Gln	Glu	Phe	Leu	Glu	Lys	Lys	Ile	Glu	Gln
	50					55					60				
Glu	Leu	Thr	Ala	Ala	Lys	Lys	His	Gly	Thr	Lys	Asn	Lys	Arg	Ala	Ala
65					70					75				80	
Leu	Gln	Ala	Leu	Lys	Arg	Lys	Lys	Arg	Tyr	Glu	Lys	Gln	Leu	Ala	Gln
			85					90					95		
Ile	Asp	Gly	Thr	Leu	Ser	Thr	Ile	Glu	Phe	Gln	Arg	Glu	Ala	Leu	Glu
			100					105					110		
Asn	Ala	Asn	Thr	Asn	Thr	Glu	Val	Leu	Lys	Asn	Met	Gly	Tyr	Ala	Ala
		115					120					125			
Lys	Ala	Met	Lys	Ala	Ala	His	Asp	Asn	Met	Asp	Ile	Asp	Lys	Val	Asp
	130					135					140				
Glu	Leu	Met	Gln	Asp	Ile	Ala	Asp	Gln	Gln	Glu	Leu	Ala	Glu	Glu	Ile
145				150						155				160	
Ser	Thr	Ala	Ile	Ser	Lys	Pro	Val	Gly	Phe	Gly	Glu	Glu	Phe	Asp	Glu
			165					170					175		
Asp	Glu	Leu	Met	Ala	Glu	Leu	Glu	Glu	Leu	Glu	Gln	Glu	Glu	Leu	Asp
		180						185					190		
Lys	Asn	Leu	Glu	Ile	Ser	Gly	Pro	Glu	Thr	Val	Pro	Leu	Pro	Asn	
	195					200					205				
Val	Pro	Ser	Ile	Ala	Leu	Pro	Ser	Lys	Pro	Ala	Lys	Lys	Lys	Glu	Glu
	210					215					220				
Glu	Asp	Asp	Asp	Met	Lys	Glu	Leu	Glu	Asn	Trp	Ala	Gly	Ser	Met	

225

230

235

&lt;210&gt; 6167

&lt;211&gt; 1220

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6167

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120  
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cctccacttc ccagtgccct tctctcctcc cggtctctgc cggaacgcggc ctccttacct  
240  
catttgctct cgccccctcc cgctccctcta cgcgttttgg tccctgtttg gtgctttctg  
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480  
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780  
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840  
tcagaaacaa tcgcttcagc aatcaagacc attgttcac atggaggaac ccatggatac  
900  
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960  
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1020  
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1080  
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1200  
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1220

&lt;210&gt; 6168

&lt;211&gt; 90

&lt;212&gt; PRT

<213> Homo sapiens

<400> 6168

Ala	Lys	Trp	Gln	Ile	Trp	Thr	Val	Ser	Ile	Asp	Ala	Asp	Glu	Pro	His
1				5					10					15	
Pro	Gly	Thr	Gly	Glu	Val	Glu	Asp	Ile	Glu	Gln	Leu	Asn	Gln	Cys	Leu
			20					25					30		
Ile	Gln	His	Phe	His	Leu	Ile	Lys	Thr	Ser	Leu	Ile	Phe	Leu	Cys	Phe
		35					40					45			
Leu	Phe	His	Gly	Ile	His	Glu	Asn	Leu	Leu	Thr	Val	Gly	Val	Ser	Lys
	50					55				60					
Glu	Ala	Tyr	Leu	Met	Thr	Ser	Val	Asn	Gly	Lys	Asn	Lys	Thr	Lys	Met
65					70					75					80
Leu	Tyr	Gly	Gln	Ser	His	Lys	Gly	Lys	Asp						
				85					90						

<210> 6169

<211> 720

<212> DNA

<213> Homo sapiens

<400> 6169

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120  
cagtgacccc aggcttttta tggctgtgaa acacgttaaa atttcagggt aagacgtgac  
180  
cttttgaggt gactataact gaagattgct ttacagaagc ccaaaaaggt tttttgagtc  
240  
atgatgcaag aatctgggac tgagacaaaa agtaacggtt cagccatcca gaatgggtcg  
300  
ggcggcagca accacttact agagtgcggc ggtcttcggg aggggcggtc caacggagag  
360  
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420  
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480  
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540  
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600  
gagaaatggg tcccactgct ttcattgcaa aataaaaatt aaacgaaaaa cagcttaagc  
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720

<210> 6170

<211> 101

<212> PRT

<213> Homo sapiens

<400> 6170

Met Met Gln Glu Ser Gly Thr Glu Thr Lys Ser Asn Gly Ser Ala Ile

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			20					25					30				
Arg	Glu	Gly	Arg	Ser	Asn	Gly	Glu	Thr	Pro	Ala	Val	Asp	Ile	Gly	Ala		
		35				40					45						
Ala	Asp	Leu	Ala	His	Ala	Gln	Gln	Gln	Gln	Gln	Gln	Trp	His	Leu	Ile		
	50				55			60									
Asn	His	Gln	Pro	Ser	Arg	Ser	Pro	Ser	Ser	Trp	Leu	Lys	Arg	Leu	Ile		
65				70				75						80			
Ser	Ser	Pro	Trp	Glu	Leu	Glu	Val	Leu	Gln	Val	Pro	Cys	Gly	Glu	Gln		
			85					90						95			
Leu	Leu	Arg	Arg	Arg													
			100														

&lt;210&gt; 6171

&lt;211&gt; 1130

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6171

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180
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240
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300
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360
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660
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720
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780
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900
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960
ctaataacaa aactttctgt gttcttagat tacagaatat cataattgat agaatatggt
1020

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1080

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1130

<210> 6172

<211> 292

<212> PRT

<213> Homo sapiens

<400> 6172

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Pro	Gln	Glu	Glu	Arg	Glu	Thr	Gln	Val	Ala	Ala	Trp	Leu	Lys	Lys	Ile
			20					25					30		
Phe	Gly	Asp	His	Pro	Ile	Pro	Gln	Tyr	Glu	Val	Asn	Pro	Arg	Thr	Thr
		35					40					45			
Glu	Ile	Leu	His	His	Leu	Ser	Glu	Arg	Asn	Arg	Val	Arg	Asp	Arg	Asp
	50					55				60					
Val	Tyr	Leu	Val	Ile	Glu	Asp	Leu	Lys	Gln	Lys	Ala	Ser	Glu	Tyr	Glu
65					70					75					80
Ser	Glu	Ala	Lys	Tyr	Leu	Gln	Asp	Leu	Leu	Met	Glu	Ser	Val	Asn	Phe
			85					90						95	
Ser	Pro	Ala	Asn	Leu	Ser	Ser	Thr	Gly	Ser	Arg	Tyr	Leu	Asn	Ala	Leu
			100					105					110		
Val	Asp	Ser	Ala	Val	Ala	Leu	Glu	Thr	Lys	Asp	Thr	Ser	Leu	Ala	Ser
		115					120						125		
Phe	Ile	Pro	Ala	Val	Asn	Asp	Leu	Thr	Ser	Asp	Leu	Phe	Arg	Thr	Lys
	130					135					140				
Ser	Lys	Ser	Glu	Glu	Ile	Lys	Ile	Glu	Leu	Glu	Lys	Leu	Glu	Lys	Asn
145					150					155					160
Leu	Thr	Ala	Thr	Leu	Val	Leu	Glu	Lys	Cys	Leu	Gln	Glu	Asp	Val	Lys
			165					170						175	
Lys	Ala	Glu	Leu	His	Leu	Ser	Thr	Glu	Arg	Ala	Lys	Val	Asp	Asn	Arg
			180					185					190		
Arg	Gln	Asn	Met	Asp	Phe	Leu	Lys	Ala	Lys	Ser	Glu	Glu	Phe	Arg	Phe
		195				200					205				
Gly	Ile	Lys	Ala	Ala	Glu	Glu	Gln	Leu	Ser	Ala	Arg	Gly	Met	Asp	Ala
	210					215					220				
Ser	Leu	Ser	His	Gln	Ser	Leu	Val	Ala	Leu	Ser	Glu	Lys	Leu	Ala	Arg
225					230					235					240
Leu	Lys	Gln	Gln	Thr	Ile	Pro	Leu	Lys	Lys	Lys	Leu	Glu	Ser	Tyr	Leu
			245					250						255	
Asp	Leu	Met	Pro	Asn	Pro	Ser	Leu	Ala	Gln	Val	Lys	Ile	Glu	Glu	Ala
		260						265					270		
Lys	Arg	Glu	Leu	Asp	Ser	Ile	Glu	Ala	Glu	Leu	Thr	Arg	Arg	Val	Asp
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Met	Met	Glu	Leu												
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<210> 6173

<211> 1483

<212> DNA

<213> Homo sapiens

&lt;400&gt; 6173

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120  
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240  
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&lt;210&gt; 6174

<211> 299  
 <212> PRT  
 <213> Homo sapiens

<400> 6174

Met	Glu	Glu	Leu	Glu	Gln	Gly	Leu	Leu	Met	Gln	Pro	Trp	Ala	Trp	Leu
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Gln	Leu	Ala	Glu	Asn	Ser	Leu	Leu	Ala	Lys	Val	Phe	Ile	Thr	Lys	Gln
			20					25					30		
Gly	Tyr	Ala	Leu	Leu	Val	Ser	Asp	Leu	Gln	Gln	Val	Trp	His	Glu	Gln
		35					40					45			
Val	Asp	Thr	Ser	Val	Val	Ser	Gln	Arg	Ala	Lys	Glu	Leu	Asn	Lys	Arg
	50					55					60				
Leu	Thr	Ala	Pro	Pro	Ala	Ala	Phe	Leu	Cys	His	Leu	Asp	Asn	Leu	Leu
65					70					75					80
Arg	Pro	Leu	Leu	Lys	Asp	Ala	Ala	His	Pro	Ser	Glu	Ala	Thr	Phe	Ser
				85					90					95	
Cys	Asp	Cys	Val	Ala	Asp	Ala	Leu	Ile	Leu	Arg	Val	Arg	Ser	Glu	Leu
			100					105					110		
Ser	Gly	Leu	Pro	Phe	Tyr	Trp	Asn	Phe	His	Cys	Met	Leu	Ala	Ser	Pro
		115					120					125			
Ser	Leu	Val	Ser	Gln	His	Leu	Ile	Arg	Pro	Leu	Met	Gly	Met	Ser	Leu
	130					135					140				
Ala	Leu	Gln	Cys	Gln	Val	Arg	Glu	Leu	Ala	Thr	Leu	Leu	His	Met	Lys
145					150					155					160
Asp	Leu	Glu	Ile	Gln	Asp	Tyr	Gln	Glu	Ser	Gly	Ala	Thr	Leu	Ile	Arg
				165				170						175	
Asp	Arg	Leu	Lys	Thr	Glu	Pro	Phe	Glu	Glu	Asn	Ser	Phe	Leu	Glu	Gln
			180					185					190		
Phe	Met	Ile	Glu	Lys	Leu	Pro	Glu	Ala	Cys	Ser	Ile	Gly	Asp	Gly	Lys
	195						200					205			
Pro	Phe	Val	Met	Asn	Leu	Gln	Asp	Leu	Tyr	Met	Ala	Val	Thr	Thr	Gln
	210					215					220				
Glu	Val	Gln	Val	Gly	Gln	Lys	His	Gln	Gly	Ala	Gly	Asp	Pro	His	Thr
225					230					235					240
Ser	Asn	Ser	Ala	Ser	Leu	Gln	Gly	Ile	Asp	Ser	Gln	Cys	Val	Asn	Gln
			245					250						255	
Pro	Glu	Gln	Leu	Val	Ser	Ser	Ala	Pro	Thr	Leu	Ser	Ala	Pro	Glu	Lys
			260					265					270		
Glu	Ser	Thr	Gly	Thr	Ser	Gly	Pro	Leu	Gln	Arg	Pro	Gln	Leu	Ser	Lys
		275				280						285			
Val	Lys	Arg	Lys	Asn	Pro	Arg	Gly	Leu	Phe	Ser					
	290					295									

<210> 6175  
 <211> 349  
 <212> DNA  
 <213> Homo sapiens

<400> 6175

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 120

aaaactgttc agtttggtgg aactgtgaca gaagtcttgc tgaagtacaa aaaggggtgaa  
 180  
 acaaatgact ttgagttggt gaagaaccag ctggttagatc cagacataaa gagattgcct  
 240  
 tggttgaata gaagtcaaac agtagtggaa gagtatttgg cttttcttgg taatcttgta  
 300  
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 349

<210> 6176

<211> 90

<212> PRT

<213> Homo sapiens

<400> 6176

Met	Arg	Ala	Leu	Glu	Asn	Asp	Phe	Phe	Asn	Ser	Pro	Pro	Arg	Lys	Thr
1				5					10					15	
Val	Gln	Phe	Gly	Gly	Thr	Val	Thr	Glu	Val	Leu	Leu	Lys	Tyr	Lys	Lys
			20					25					30		
Gly	Glu	Thr	Asn	Asp	Phe	Glu	Leu	Leu	Lys	Asn	Gln	Leu	Leu	Asp	Pro
			35				40					45			
Asp	Ile	Lys	Arg	Leu	Pro	Trp	Leu	Asn	Arg	Ser	Gln	Thr	Val	Val	Glu
	50					55				60					
Glu	Tyr	Leu	Ala	Phe	Leu	Gly	Asn	Leu	Val	Ser	Ala	Gln	Thr	Val	Phe
65					70					75					80
Leu	Arg	Pro	Cys	Leu	Ser	Met	Ile	Ala	Ser						
			85						90						

<210> 6177

<211> 1536

<212> DNA

<213> Homo sapiens

<400> 6177

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 120  
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 180  
 tttgccagtg gaggcttcca ggtgaaactc tatgacattg agcaacagca gataaggaac  
 240  
 gccctggaaa acatcagaaa ggagatgaag ttgctggagc aggcagggtc tctgaaaggc  
 300  
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 360  
 gtagagggtg ccatgcacat tcaggaatgt gttccagaag atctagaact gaagaagaag  
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 480  
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 540  
 catcctgtga atccgccata ctacatcccg ctggttgagc tgggtcccca ccgggagacg  
 600

gcccctacga cagtggacag aacccacgcc ctgatgaaga agattgganc agtgcccat  
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 780  
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 840  
 aatgcagaag gtatgttaag ctactgagac agatacagcg aaggcataaa acatgtccta  
 900  
 cagacttttg gaccatttcc agagttttcc agggccactg ctgagaaggt taaccaggac  
 960  
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 1020  
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 1080  
 aatgcagctt ccactcctct cattggaggc cctatttggg aacactgcaa gcccttaac  
 1140  
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 1320  
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 1536

&lt;210&gt; 6178

&lt;211&gt; 310

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6178

Met	Gly	Thr	Ser	Val	Glu	Ser	Leu	Gly	Glu	Trp	Ala	Met	Leu	Phe	Ala
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Ser	Gly	Gly	Phe	Gln	Val	Lys	Leu	Tyr	Asp	Ile	Glu	Gln	Gln	Gln	Ile
			20					25					30		
Arg	Asn	Ala	Leu	Glu	Asn	Ile	Arg	Lys	Glu	Met	Lys	Leu	Leu	Glu	Gln
		35					40					45			
Ala	Gly	Ser	Leu	Lys	Gly	Ser	Leu	Ser	Val	Glu	Glu	Gln	Leu	Ser	Leu
	50					55				60					
Ile	Ser	Gly	Cys	Pro	Asn	Ile	Gln	Glu	Ala	Val	Glu	Gly	Ala	Met	His
65					70				75					80	
Ile	Gln	Glu	Cys	Val	Pro	Glu	Asp	Leu	Glu	Leu	Lys	Lys	Lys	Ile	Phe
			85					90						95	
Ala	Gln	Leu	Asp	Ser	Ile	Ile	Asp	Asp	Arg	Val	Ile	Leu	Ser	Ser	Ser
		100					105					110			
Thr	Ser	Cys	Leu	Met	Pro	Ser	Lys	Leu	Phe	Ala	Gly	Leu	Val	His	Val

115	120	125
Lys Gln Cys Ile Val Ala His Pro Val Asn Pro Pro Tyr Tyr Ile Pro		
130	135	140
Leu Val Glu Leu Val Pro His Pro Glu Thr Ala Pro Thr Thr Val Asp		
145	150	155
Arg Thr His Ala Leu Met Lys Lys Ile Gly Xaa Val Pro His Ala Ser		
165	170	175
Pro Glu Gly Gly Gly Arg Leu Arg Ser Glu Pro Pro Ala Ile Cys Asn		
180	185	190
His Gln Arg Gly Leu Ala Ala Ser Gly Gly Arg Asn Xaa Cys Leu Leu		
195	200	205
Val Thr Trp Xaa Leu Val Met Ser Glu Gly Leu Gly Met Arg Tyr Ala		
210	215	220
Phe Ile Gly Pro Leu Glu Thr Met His Leu Asn Ala Glu Gly Met Leu		
225	230	235
Ser Tyr Cys Asp Arg Tyr Ser Glu Gly Ile Lys His Val Leu Gln Thr		
245	250	255
Phe Gly Pro Ile Pro Glu Phe Ser Arg Ala Thr Ala Glu Lys Val Asn		
260	265	270
Gln Asp Met Cys Met Lys Val Pro Asp Asp Pro Glu His Leu Ala Ala		
275	280	285
Arg Arg Gln Trp Arg Asp Glu Cys Leu Met Arg Leu Ala Lys Leu Lys		
290	295	300
Ser Gln Val Gln Pro Gln		
305	310	

&lt;210&gt; 6179

&lt;211&gt; 2940

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6179

```

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180
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240
tatcaccaaa gagttactat gaactttata tggccatttc tgatgaactg cactacttgg
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360
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420
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480
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540
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600
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660

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780  
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1560  
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1680  
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1740  
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1980  
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2160  
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2220  
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2280



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 2340  
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 2400  
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 2460  
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 2640  
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 2700  
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 2760  
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 2820  
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 2880  
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 2940

&lt;210&gt; 6180

&lt;211&gt; 751

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6180

Met	Leu	Leu	Ile	Cys	Leu	Val	Asn	Ser	Gly	Leu	Leu	Cys	Tyr	His	Gln
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Arg	Val	Thr	Met	Asn	Phe	Ile	Trp	Pro	Phe	Leu	Met	Asn	Cys	Thr	Thr
			20					25					30		
Trp	Arg	Xaa	Tyr	Leu	Thr	Asp	Glu	Phe	Ala	Lys	Gly	Arg	Lys	Val	Ala
		35				40						45			
Asp	Leu	Tyr	Glu	Leu	Val	Gln	Tyr	Ala	Gly	Asn	Ile	Ile	Pro	Arg	Leu
	50					55					60				
Tyr	Leu	Leu	Ile	Thr	Val	Gly	Val	Val	Tyr	Val	Lys	Ser	Phe	Pro	Gln
65					70					75					80
Ser	Arg	Lys	Asp	Ile	Leu	Lys	Asp	Leu	Val	Glu	Met	Cys	Arg	Gly	Val
			85					90						95	
Gln	His	Pro	Leu	Arg	Gly	Leu	Phe	Leu	Arg	Asn	Tyr	Leu	Leu	Gln	Cys
		100						105						110	
Thr	Arg	Asn	Ile	Leu	Pro	Asp	Glu	Gly	Glu	Pro	Thr	Asp	Glu	Glu	Thr
		115					120					125			
Thr	Gly	Asp	Ile	Ser	Asp	Ser	Met	Asp	Phe	Val	Leu	Leu	Asn	Phe	Ala
	130					135						140			
Glu	Met	Asn	Lys	Leu	Trp	Val	Arg	Met	Gln	His	Gln	Gly	His	Ser	Arg
145				150					155					160	
Asp	Arg	Glu	Lys	Arg	Glu	Arg	Glu	Arg	Gln	Glu	Leu	Arg	Ile	Leu	Val
			165					170						175	
Gly	Thr	Asn	Leu	Val	Arg	Leu	Ser	Xaa	Ser	Trp	Arg	Cys	Lys	Cys	Gly
		180					185						190		
Thr	Leu	Gln	Gln	Ile	Val	Leu	Thr	Gly	Ile	Leu	Glu	Gln	Val	Val	Asn

5361

625		630		635		640
Asn Gly Glu Glu Leu His Gly Gly Lys Arg Val Met Glu Cys Leu Lys						
	645		650		655	
Lys Ala Leu Lys Ile Ala Asn Gln Cys Met Asp Pro Ser Leu Gln Val						
	660		665		670	
Gln Leu Phe Ile Glu Ile Leu Asn Arg Tyr Ile Tyr Phe Tyr Glu Lys						
	675		680		685	
Glu Asn Asp Ala Val Thr Ile Gln Val Leu Asn Gln Leu Ile Gln Lys						
	690		695		700	
Ile Arg Glu Asp Leu Pro Asn Leu Glu Ser Ser Glu Glu Thr Glu Gln						
705		710		715		720
Ile Asn Lys His Phe His Asn Thr Leu Glu His Leu Arg Leu Arg Arg						
	725		730		735	
Glu Ser Pro Glu Ser Glu Gly Pro Ile Tyr Glu Gly Leu Ile Leu						
	740		745		750	

&lt;210&gt; 6181

&lt;211&gt; 1135

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6181

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 cccaccacgc cctattttctc ccgggacgca cagaaacatg atgtggaagt gctggaacgg  
 180  
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 240  
 ctcccgaag gatggaaaat gaacagcacc ccagcgggg agtggttcac cttttacttg  
 300  
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 360  
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 420  
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 480  
 catttaggtc tgaaaactcc aaatggctgt gagctggtgg tggggggaga gcccagtg  
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 600  
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 780  
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 900  
 ttgtatttcc ttagattttt ttttttctt tccaatcatt tgcttcagag actcctttct  
 960

ggcctaacag cgcattcctt tgattggtcc ttgagtgacc agagacttag tgcccttgta  
 1020  
 agtctgtctt ctgttgctac ttgttttttt cagtgtctctg aaatagagta actaaatggt  
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<210> 6182

<211> 236

<212> PRT

<213> Homo sapiens

<400> 6182

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Arg	Glu	Gln	Gly	Arg	Tyr	Leu	Asn	Ser	Arg	Pro	Ser	Ile	Gln	Lys	Pro
			20					25					30		
Glu	Val	Phe	Phe	Leu	Pro	Asp	Leu	Pro	Thr	Thr	Pro	Tyr	Phe	Ser	Arg
		35					40					45			
Asp	Ala	Gln	Lys	His	Asp	Val	Glu	Val	Leu	Glu	Arg	Asn	Phe	Gln	Thr
	50				55						60				
Ile	Leu	Cys	Glu	Phe	Glu	Thr	Leu	Tyr	Lys	Ala	Phe	Ser	Asn	Cys	Ser
65					70					75				80	
Leu	Pro	Gln	Gly	Trp	Lys	Met	Asn	Ser	Thr	Pro	Ser	Gly	Glu	Trp	Phe
				85					90					95	
Thr	Phe	Tyr	Leu	Val	Asn	Gln	Gly	Val	Cys	Val	Pro	Arg	Asn	Cys	Arg
			100					105					110		
Lys	Cys	Pro	Arg	Thr	Tyr	Arg	Leu	Leu	Gly	Ser	Leu	Arg	Thr	Cys	Ile
		115					120					125			
Gly	Asn	Asn	Val	Phe	Gly	Asn	Ala	Cys	Ile	Ser	Val	Leu	Ser	Pro	Gly
	130					135					140				
Thr	Val	Ile	Thr	Glu	His	Tyr	Gly	Pro	Thr	Asn	Ile	Arg	Ile	Arg	Cys
145					150					155					160
His	Leu	Gly	Leu	Lys	Thr	Pro	Asn	Gly	Cys	Glu	Leu	Val	Val	Gly	Gly
				165					170					175	
Glu	Pro	Gln	Cys	Trp	Ala	Glu	Gly	Arg	Cys	Leu	Leu	Phe	Asp	Asp	Ser
			180					185					190		
Phe	Leu	His	Ala	Ala	Phe	His	Glu	Gly	Ser	Ala	Glu	Asp	Gly	Pro	Arg
		195					200					205			
Val	Val	Phe	Met	Val	Asp	Leu	Trp	His	Pro	Asn	Val	Ala	Ala	Ala	Glu
	210					215					220				
Arg	Gln	Ala	Leu	Asp	Phe	Ile	Phe	Ala	Pro	Gly	Arg				
225					230					235					

<210> 6183

<211> 2530

<212> DNA

<213> Homo sapiens

<400> 6183

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&lt;210&gt; 6184

&lt;211&gt; 308

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6184

Arg	Ala	Ser	Thr	Pro	Tyr	Leu	Arg	Pro	Cys	Leu	Arg	Glu	Leu	Arg	Gly
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Leu	Gly	Pro	Gly	Pro	Val	His	Gly	Arg	Asp	Pro	Gly	Pro	Gly	Gly	Pro
			20					25					30		
Gly	Met	Gly	Asn	Arg	Gly	Gly	Phe	Arg	Gly	Gly	Phe	Gly	Ser	Gly	Ile
		35					40					45			
Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly	Arg	Gly
	50					55					60				
Ala	Arg	Gly	Gly	Lys	Ala	Glu	Asp	Lys	Glu	Trp	Met	Pro	Val	Thr	Lys
65				70					75					80	
Leu	Gly	Arg	Leu	Val	Lys	Asp	Met	Lys	Ile	Lys	Ser	Leu	Glu	Glu	Ile
			85					90					95		
Tyr	Leu	Phe	Ser	Leu	Pro	Ile	Lys	Glu	Ser	Glu	Ile	Ile	Asp	Phe	Phe
			100					105					110		
Leu	Gly	Ala	Ser	Leu	Lys	Asp	Glu	Val	Leu	Lys	Ile	Met	Pro	Val	Gln
		115					120					125			
Lys	Gln	Thr	Arg	Ala	Gly	Gln	Arg	Thr	Arg	Phe	Lys	Ala	Phe	Val	Ala
	130					135					140				
Ile	Gly	Asp	Tyr	Asn	Gly	His	Val	Gly	Leu	Gly	Val	Lys	Cys	Ser	Lys

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145          150          155          160
Glu Val Ala Thr Ala Ile Arg Gly Ala Ile Ile Leu Ala Lys Leu Ser
          165          170          175
Ile Val Pro Val Arg Arg Gly Tyr Trp Gly Asn Lys Ile Gly Lys Pro
          180          185          190
His Thr Val Pro Cys Lys Val Thr Gly Arg Cys Gly Ser Val Leu Val
          195          200          205
Arg Leu Ile Pro Ala Pro Arg Gly Thr Gly Ile Val Ser Ala Pro Val
          210          215          220
Pro Lys Lys Leu Leu Met Met Ala Gly Ile Asp Asp Cys Tyr Thr Ser
225          230          235          240
Ala Arg Gly Cys Thr Ala Thr Leu Gly Asn Phe Ala Lys Ala Thr Phe
          245          250          255
Asp Ala Ile Ser Lys Thr Tyr Ser Tyr Leu Thr Pro Asp Leu Trp Lys
          260          265          270
Glu Thr Val Phe Thr Lys Ser Pro Tyr Gln Glu Phe Thr Asp His Leu
          275          280          285
Val Lys Thr His Thr Arg Val Ser Val Gln Arg Thr Gln Ala Pro Ala
          290          295          300
Val Ala Thr Thr
305

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&lt;210&gt; 6185

&lt;211&gt; 1231

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6185

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300
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360
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420
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720
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780

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<210> 6186

<211> 133

<212> PRT

<213> Homo sapiens

<400> 6186

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Tyr	Ser	Pro	Asn	Thr	Ala	Tyr	Gly	Val	Asp	Phe	Leu	Val	Pro	Val	Met
			20					25					30		
Gly	Tyr	Ile	Cys	Arg	Ile	Cys	His	Lys	Phe	Tyr	His	Ser	Asn	Ser	Gly
		35					40					45			
Ala	Gln	Leu	Ser	His	Cys	Lys	Ser	Leu	Gly	His	Phe	Glu	Asn	Leu	Gln
	50					55					60				
Lys	Tyr	Lys	Ala	Ala	Lys	Asn	Pro	Ser	Pro	Thr	Thr	Arg	Pro	Val	Ser
65					70					75				80	
Arg	Arg	Cys	Ala	Ile	Asn	Ala	Arg	Asn	Ala	Leu	Thr	Ala	Leu	Phe	Thr
				85					90					95	
Ser	Ser	Gly	Arg	Pro	Pro	Ser	Gln	Pro	Asn	Thr	Gln	Asp	Lys	Thr	Pro
			100					105					110		
Ser	Lys	Val	Thr	Ala	Arg	Pro	Ser	Gln	Pro	Pro	Leu	Pro	Arg	Arg	Ser
		115						120					125		
Thr	Arg	Leu	Lys	Thr											
															130

<210> 6187

<211> 909

<212> DNA

<213> Homo sapiens

<400> 6187

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 780  
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<210> 6188

<211> 227

<212> PRT

<213> Homo sapiens

<400> 6188

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Met	Met	Val	Val	Thr	Gly	Asp	Glu	Asp	Glu	Asn	Ser	Pro	Cys	Ala	His
			20					25					30		
Glu	Ala	Leu	Leu	Asp	Glu	Asp	Thr	Leu	Phe	Cys	Gln	Gly	Leu	Glu	Val
		35					40					45			
Phe	Tyr	Pro	Glu	Leu	Gly	Asn	Ile	Gly	Cys	Lys	Val	Val	Pro	Asp	Cys
	50					55				60					
Asn	Asn	Tyr	Arg	Gln	Lys	Ile	Thr	Ser	Trp	Met	Glu	Pro	Ile	Val	Lys
65					70				75					80	
Phe	Pro	Gly	Ala	Val	Tyr	Gly	Ala	Thr	Tyr	Ile	Leu	Val	Met	Val	Asp
				85				90					95		
Pro	Asp	Ala	Pro	Ser	Arg	Ala	Glu	Pro	Arg	Gln	Arg	Phe	Trp	Arg	His
			100					105					110		
Trp	Leu	Val	Thr	Asp	Ile	Lys	Gly	Ala	Asp	Leu	Lys	Lys	Gly	Lys	Ile
		115					120					125			
Gln	Gly	Gln	Glu	Leu	Ser	Ala	Tyr	Gln	Ala	Pro	Ser	Pro	Pro	Ala	His
		130				135					140				
Ser	Gly	Phe	His	Arg	Tyr	Gln	Phe	Phe	Val	Tyr	Leu	Gln	Glu	Gly	Lys
145					150					155				160	
Val	Ile	Ser	Leu	Leu	Pro	Lys	Glu	Asn	Lys	Thr	Arg	Gly	Ser	Trp	Lys

				165					170					175					
Met	Asp	Arg	Phe	Leu	Asn	Arg	Phe	His	Leu	Gly	Glu	Pro	Glu	Ala	Ser				
			180					185					190						
Thr	Gln	Phe	Met	Thr	Gln	Asn	Tyr	Gln	Asp	Ser	Pro	Thr	Leu	Gln	Ala				
		195					200					205							
Pro	Arg	Glu	Arg	Ala	Ser	Glu	Pro	Lys	His	Lys	Asn	Gln	Ala	Glu	Ile				
	210					215					220								
Ala	Ala	Cys																	
225																			

&lt;210&gt; 6189

&lt;211&gt; 2761

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6189

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1140

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a

2761

&lt;210&gt; 6190

&lt;211&gt; 576

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6190

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Pro Asp Gly Ala Thr Ala Gln Thr Ser Ala Asp Gly Ser Gln Ala Gln
          20          25          30
Asn Leu Glu Ser Arg Thr Ile Ile Arg Gly Lys Arg Thr Arg Lys Ile
          35          40          45
Asn Asn Leu Asn Val Glu Glu Asn Ser Ser Gly Asp Gln Arg Arg Ala
          50          55          60
Pro Leu Ala Ala Gly Thr Trp Arg Ser Ala Pro Val Pro Val Thr Thr
65          70          75          80
Gln Asn Pro Pro Gly Ala Pro Pro Asn Val Leu Trp Gln Thr Pro Leu
          85          90          95
Ala Trp Gln Asn Pro Ser Gly Trp Gln Asn Gln Thr Ala Arg Gln Thr
          100          105          110
Pro Pro Ala Arg Gln Ser Pro Pro Ala Arg Gln Thr Pro Pro Ala Trp
          115          120          125
Gln Thr Gln Asn Pro Val Ala Trp Gln Asn Pro Val Ile Trp Pro Asn
          130          135          140
Pro Val Ile Trp Gln Asn Pro Val Ile Trp Pro Asn Pro Ile Val Trp
145          150          155          160
Pro Gly Pro Val Val Trp Pro Asn Pro Leu Ala Trp Gln Asn Pro Pro
          165          170          175
Gly Trp Gln Thr Pro Pro Gly Trp Gln Thr Pro Pro Gly Trp Gln Gly
          180          185          190
Pro Pro Asp Trp Gln Gly Pro Pro Asp Trp Pro Leu Pro Pro Asp Trp
          195          200          205
Pro Leu Pro Pro Asp Trp Pro Leu Pro Thr Asp Trp Pro Leu Pro Pro
          210          215          220
Asp Trp Ile Pro Ala Asp Trp Pro Ile Pro Pro Asp Trp Gln Asn Leu
225          230          235          240
Arg Pro Ser Pro Asn Leu Arg Pro Ser Pro Asn Ser Arg Ala Ser Gln
          245          250          255
Asn Pro Gly Ala Ala Gln Pro Arg Asp Val Ala Leu Leu Gln Glu Arg
          260          265          270
Ala Asn Lys Leu Val Lys Tyr Leu Met Leu Lys Asp Tyr Thr Lys Val
          275          280          285
Pro Ile Lys Arg Ser Glu Met Leu Arg Asp Ile Ile Arg Glu Tyr Thr
          290          295          300
Asp Val Tyr Pro Glu Ile Ile Glu Arg Ala Cys Phe Val Leu Glu Lys
305          310          315          320
Lys Phe Gly Ile Gln Leu Lys Glu Ile Asp Lys Glu Glu His Leu Tyr
          325          330          335
Ile Leu Ile Ser Thr Pro Glu Ser Leu Ala Gly Ile Leu Gly Thr Thr
          340          345          350
Lys Asp Thr Pro Lys Leu Gly Leu Leu Leu Val Ile Leu Gly Val Ile

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355	360	365
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Leu Arg Lys Leu Leu Thr Tyr Glu Phe Val Lys Gln Lys Tyr Leu Asp		
405	410	415
Tyr Arg Arg Val Pro Asn Ser Asn Pro Pro Glu Tyr Glu Phe Leu Trp		
420	425	430
Gly Leu Arg Ser Tyr His Glu Thr Ser Lys Met Lys Val Leu Arg Phe		
435	440	445
Ile Ala Glu Val Gln Lys Arg Asp Pro Arg Asp Trp Thr Ala Gln Phe		
450	455	460
Met Glu Ala Ala Asp Glu Ala Leu Asp Ala Leu Asp Ala Ala Ala Ala		
465	470	475
Glu Ala Glu Ala Arg Ala Glu Ala Arg Thr Arg Met Gly Ile Gly Asp		
485	490	495
Glu Ala Val Ser Gly Pro Trp Ser Trp Asp Asp Ile Glu Phe Glu Leu		
500	505	510
Leu Thr Trp Asp Glu Glu Gly Asp Phe Gly Asp Pro Trp Ser Arg Ile		
515	520	525
Pro Phe Thr Phe Trp Ala Arg Tyr His Gln Asn Ala Arg Ser Arg Phe		
530	535	540
Pro Gln Thr Phe Ala Gly Pro Ile Ile Gly Pro Gly Gly Thr Ala Ser		
545	550	555
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&lt;210&gt; 6191

&lt;211&gt; 3021

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6191

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&lt;210&gt; 6192

&lt;211&gt; 815

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6192

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&lt;210&gt; 6193

&lt;211&gt; 2893

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6193

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<211> 621

<212> PRT

<213> Homo sapiens

<400> 6194

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Gln	Ala	Phe	Asn	His	Ile	Ala	Lys	Leu	Cys	Ser	Leu	Lys	Arg	Leu	Val		
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Leu	Tyr	Arg	Thr	Lys	Val	Glu	Gln	Thr	Ala	Leu	Leu	Ser	Ile	Leu	Asn		
	435					440						445					
Phe	Cys	Ser	Glu	Leu	Gln	His	Leu	Ser	Leu	Gly	Ser	Cys	Val	Met	Ile		
	450				455					460							
Glu	Asp	Tyr	Asp	Val	Ile	Ala	Ser	Met	Ile	Gly	Ala	Lys	Cys	Lys	Lys		
465				470					475					480			
Leu	Arg	Thr	Leu	Asp	Leu	Trp	Arg	Cys	Lys	Asn	Ile	Thr	Glu	Asn	Gly		
			485					490						495			
Ile	Ala	Glu	Leu	Ala	Ser	Gly	Cys	Pro	Leu	Leu	Glu	Glu	Leu	Asp	Leu		
	500					505						510					
Gly	Trp	Cys	Pro	Thr	Leu	Gln	Ser	Ser	Thr	Gly	Cys	Phe	Thr	Arg	Leu		
	515					520						525					
Ala	His	Gln	Leu	Pro	Asn	Leu	Gln	Lys	Leu	Phe	Leu	Thr	Ala	Asn	Arg		
	530				535						540						
Ser	Val	Cys	Asp	Thr	Asp	Ile	Asp	Glu	Leu	Ala	Cys	Asn	Cys	Thr	Arg		
545				550					555					560			
Leu	Gln	Gln	Leu	Asp	Ile	Leu	Gly	Thr	Arg	Met	Val	Ser	Pro	Ala	Ser		
			565					570						575			
Leu	Arg	Lys	Leu	Leu	Glu	Ser	Cys	Lys	Asp	Leu	Ser	Leu	Leu	Asp	Val		
	580							585				590					
Ser	Phe	Cys	Ser	Gln	Ile	Asp	Asn	Arg	Ala	Val	Leu	Glu	Leu	Asn	Ala		

	595		600		605
Ser	Phe	Pro	Lys	Val	Phe
			Ile	Lys	Lys
			Ser	Phe	Thr
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<210> 6195  
 <211> 518  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180  
 acatccaaat tcttcactgg cacagaaatg gtgttacatc cactgggaac aaacctgcat  
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 300  
 cagcccatca tcttgcctct tccatagtca cttattaagc acaaactatg ccaaaaacta  
 360  
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<210> 6196  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 6196  
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 20 25 30  
 Leu Leu Leu Ser Arg Thr Thr Arg Val Lys Pro His Pro Tyr Lys Tyr  
 35 40 45  
 Gln Val His Pro Asn Ser Ser Leu Ala Gln Lys Trp Cys Tyr Ile His  
 50 55 60  
 Trp Glu Gln Thr Cys Ile Pro Thr Pro Arg His Val Thr Thr Gly Thr  
 65 70 75 80  
 Ala Asn Glu Leu Cys Pro Gly Asn Ser Phe Thr Pro Ser Ser Cys Ser  
 85 90 95  
 Phe His Ser His Leu Leu Ser Thr Asn Tyr Ala Lys Asn Tyr Val Gln  
 100 105 110  
 His Arg Thr Gly Trp  
 115

<210> 6197  
 <211> 2841



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6197

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120  
aataccaggt acagcctttc cccgctcatc cagagcagga caaacaggcc aggtgggtatc  
180  
aggagcccag gtctccagct ggagggaatg tcaaccctgc agtgggagca ggggcccac  
240  
acgcaccta ggcacagatg ctaatgcagg cactgcaggt aagctgggct tggatcctt  
300  
ccctggcttc agaaagaagc caacaaggag cgttttgcag aatgaaacct ttgtttccag  
360  
aagcactgct gactgtaagt ggttgccgtt tgtggcagtg agcattttgt ccattctgag  
420  
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2160  
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2220  
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2280  
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2760  
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2820  
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2841

&lt;210&gt; 6198

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6198

Met Gly Ala Ser His Gly Asn Trp Glu Val Pro Arg Gln Ser Gln Arg

1	5	10	15
Phe His Arg Arg Ser Gln Arg Val Thr Lys Gly Ser Pro Gly Pro Gly			
	20	25	30
Ser Ser Gln His His Gly Leu Asn Thr His Trp Ala Pro Thr Leu Gly			
	35	40	45
Pro Gly Trp Gly Met Trp Gly Gln Glu Ala Ala Gln Ser Gly Arg Gln			
	50	55	60
Arg Glu Lys Cys Val Gln Arg Ala Pro Ile Ser Gly Cys Asn Val Val			
65	70	75	80
Leu Arg Leu Trp Leu Gly Ser Ala Ser Arg Val Ser Tyr Val Leu Cys			
	85	90	95
Ser Tyr Phe Leu Ser Pro Thr Leu Pro Cys Arg Asn Pro Ser Glu Tyr			
	100	105	110
Val Ala Thr Ile Leu Glu Leu Ser Ala Leu Ile Val			
	115	120	

&lt;210&gt; 6199

&lt;211&gt; 1777

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6199

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1777

&lt;210&gt; 6200

&lt;211&gt; 164

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6200

Val	Gly	Val	Gly	Ser	Ser	Ala	Glu	Pro	Ser	Arg	His	Gly	Cys	Pro	Leu
1				5					10					15	
Phe	Trp	Glu	Glu	Gly	Ser	Ala	Pro	Arg	Pro	Gln	Glu	Ser	Arg	Gln	Arg
			20					25					30		
Pro	Pro	Lys	Pro	Asp	Cys	Gln	Gln	Lys	Pro	Ser	Pro	Ser	Glu	Gly	Gln
		35					40					45			
Val	Gly	Val	Pro	Xaa	Arg	Ser	Pro	His	Pro	Gln	Gly	Gly	Phe	Thr	His
	50					55				60					
Cys	Pro	Val	Pro	Gly	Met	Pro	Gly	Gly	Arg	Pro	Leu	Cys	Cys	Cys	His
65					70				75					80	
Cys	Cys	Gln	His	Cys	Pro	Ala	Cys	Glu	Ala	Arg	Arg	Ser	Pro	Cys	Pro
			85					90					95		
Thr	Arg	Cys	Cys	Cys	Ser	Ser	Asp	Pro	Cys	Cys	Glu	Glu	Trp	Asp	Ser
			100					105					110		
Trp	Ser	Lys	Lys	Leu	Val	Phe	Leu	Phe	Cys	Ile	Asn	Glu	Lys	Asn	Pro
		115					120					125			
Gly	Glu	Ala	Ala	Thr	Leu	Pro	Ser	Gln	Arg	Asp	Ala	Leu	Pro	Cys	Phe
	130					135					140				
Gly	Val	Leu	Ser	Pro	Phe	Pro	Pro	Leu	Val	Gln	Gly	Gln	Pro	Ser	Arg

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Ser Ser Trp Phe

150

155

160

<210> 6201

<211> 604

<212> DNA

<213> Homo sapiens

<400> 6201

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120  
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420  
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480  
atcacgcagg tgcacagggt gaacgtcagg actgaaacgg aagacaatgt ccccatgcaa  
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gccg  
604

<210> 6202

<211> 124

<212> PRT

<213> Homo sapiens

<400> 6202

Met	Gly	Glu	Ala	Arg	Gly	Pro	Arg	Gly	Thr	Ser	Arg	Arg	Pro	Leu	Ala
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Pro	Ser	Asp	Arg	Met	Arg	Asp	Arg	Asn	Ala	Gln	Gln	Arg	Ala	Ile	Gln
			20					25					30		
Gly	Gln	Trp	Thr	Leu	Gly	Arg	Gly	Ala	Glu	Trp	Ala	Ala	Leu	Arg	Arg
		35					40					45			
Ala	Gly	Leu	Arg	Gly	Cys	Arg	Glu	Glu	Phe	Gly	Gly	Lys	Gly	Gln	Pro
		50				55					60				
Gln	Ser	Leu	Ser	Cys	Ala	Ser	Trp	Glu	Arg	Gly	Met	Thr	Gly	Arg	His
65				70					75					80	
Thr	Asn	Val	Ser	Gln	Gly	Arg	Trp	Ala	Trp	Gly	His	Arg	Ala	Pro	Arg
				85				90						95	
Gly	Gly	Ser	Gly	Glu	Gly	Glu	Pro	Ala	Glu	Glu	Arg	Pro	Gly	Arg	Ala
			100					105					110		
Gly	Asp	His	Ala	Gly	Ala	Gln	Gly	Glu	Arg	Gln	Asp				

115

120

&lt;210&gt; 6203

&lt;211&gt; 3462

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6203

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120  
gacggattgg gaggtttgtc tacagatddd gagcgttcga agttgacccc tgactaagta  
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tactttgctg ctccctcagc ctttgaaaaa atgtctgtca catatgatga ttccgttgga  
240  
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300  
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420  
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720  
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780  
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2400  
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2460  
attcagagtt aaaaagaaga ctaacttttc aagcaaatgc atctgtaaag atgctttaga  
2520  
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2580  
gcactcgtct actgttttaa tgagatttaa cagcttttaa cagtgagttt cgtttgtaaa  
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&lt;210&gt; 6204

&lt;211&gt; 486

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6204

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			20					25					30		
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		35					40					45			
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65				70						75					80
Lys	Ala	Trp	Met	Ala	Phe	Met	Ser	Glu	Ala	Glu	Arg	Val	Ser	Glu	Leu
			85					90					95		
His	Leu	Glu	Val	Lys	Ala	Ser	Leu	Met	Asn	Asp	Asp	Phe	Glu	Lys	Ile
			100					105					110		
Lys	Asn	Trp	Gln	Lys	Glu	Ala	Phe	His	Lys	Gln	Met	Met	Gly	Gly	Phe
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Lys	Glu	Thr	Lys	Glu	Ala	Glu	Asp	Gly	Phe	Arg	Lys	Ala	Gln	Lys	Pro
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Trp	Ala	Lys	Lys	Leu	Lys	Glu	Val	Glu	Ala	Ala	Lys	Lys	Ala	His	His
145				150						155					160
Ala	Ala	Cys	Lys	Glu	Glu	Lys	Leu	Ala	Ile	Ser	Arg	Glu	Ala	Asn	Ser
			165					170					175		
Lys	Ala	Asp	Pro	Ser	Leu	Asn	Pro	Glu	Gln	Leu	Lys	Lys	Leu	Gln	Asp
		180						185					190		
Lys	Ile	Glu	Lys	Cys	Lys	Gln	Asp	Val	Leu	Lys	Thr	Lys	Glu	Lys	Tyr
	195					200						205			
Glu	Lys	Ser	Leu	Lys	Glu	Leu	Asp	Gln	Gly	Thr	Pro	Gln	Tyr	Met	Glu
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225				230					235						240
Leu	Arg	Phe	Phe	Arg	Glu	Val	Leu	Leu	Glu	Val	Gln	Lys	His	Leu	Asp

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			260					265					270				
Ser	Ile	Arg	Ala	Ala	Asp	Ala	Val	Glu	Asp	Leu	Arg	Trp	Phe	Arg	Ala		
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Ser	Ala	Asp	Leu	Asn	Arg	Thr	Leu	Ser	Arg	Arg	Glu	Lys	Lys	Lys	Ala		
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Thr	Asp	Gly	Val	Thr	Leu	Thr	Gly	Ile	Asn	Gln	Thr	Gly	Asp	Gln	Ser		
			325					330					335				
Leu	Pro	Ser	Lys	Pro	Ser	Ser	Thr	Leu	Asn	Val	Pro	Ser	Asn	Pro	Ala		
		340						345				350					
Gln	Ser	Ala	Gln	Ser	Gln	Ser	Ser	Tyr	Asn	Pro	Phe	Glu	Asp	Glu	Asp		
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Asp	Glu	Ser	Asn	Asn	Pro	Phe	Ser	Ser	Thr	Asp	Ala	Asn	Gly	Asp	Ser		
			405					410					415				
Asn	Pro	Phe	Asp	Asp	Asp	Ala	Thr	Ser	Gly	Thr	Glu	Val	Arg	Val	Arg		
		420				425						430					
Ala	Leu	Tyr	Asp	Tyr	Glu	Gly	Gln	Glu	His	Asp	Glu	Leu	Ser	Phe	Lys		
	435					440					445						
Ala	Gly	Asp	Glu	Leu	Thr	Lys	Met	Glu	Asp	Glu	Asp	Glu	Gln	Gly	Trp		
	450				455					460							
Cys	Lys	Gly	Arg	Leu	Asp	Asn	Gly	Gln	Val	Gly	Leu	Tyr	Pro	Ala	Asn		
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Tyr	Val	Glu	Ala	Ile	Gln												
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&lt;210&gt; 6205

&lt;211&gt; 926

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6205

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240  
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300  
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360  
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420  
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480

tggacggtgg cccctcagc ctggcagcct ctggacagag aggaaggaag gattggaaaa  
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<210> 6206

<211> 92

<212> PRT

<213> Homo sapiens

<400> 6206

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Glu	Met	Glu	Lys	Trp	Gly	Glu	Asp	Phe	Gly	Glu	Ser	Arg	Gly	Arg	Ala
			20					25					30		
Arg	Glu	Gly	Lys	Glu	Phe	Ala	Asp	Ser	Gln	Lys	Leu	Leu	Phe	Met	Glu
		35					40					45			
Thr	Ser	Ala	Lys	Leu	Asn	His	Gln	Val	Ser	Glu	Val	Phe	Asn	Thr	Val
	50					55					60				
Ala	Gln	Glu	Leu	Leu	Gln	Arg	Ser	Asp	Glu	Glu	Gly	Gln	Ala	Leu	Xaa
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Gly	Glu	Asp	Thr	Pro	Cys	Leu	Gly	His	Gly	Gln	Leu				
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<210> 6207

<211> 1384

<212> DNA

<213> Homo sapiens

<400> 6207

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 120  
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 180  
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 240  
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 300  
 acctacttcg gggcccactt tgctgtcatc cgccgagcgt ccctggagaa gaacccttac  
 360

caggctgtgc accaatgggc cttctctgcg gggttgagcc tgggtgggct cctgactctg  
 420  
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 480  
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 660  
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 780  
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 1384

&lt;210&gt; 6208

&lt;211&gt; 290

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6208

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			20					25					30		
Ser	Ala	Gly	Leu	Ser	Leu	Val	Gly	Leu	Leu	Thr	Leu	Gly	Ala	Val	Leu
		35					40					45			
Ser	Ala	Ala	Ala	Thr	Val	Arg	Glu	Ala	Gln	Gly	Leu	Met	Ala	Gly	Gly
	50					55					60				
Phe	Leu	Cys	Phe	Ser	Leu	Ala	Phe	Xaa	Ala	Gln	Val	Gln	Val	Val	Phe
65					70					75				80	
Trp	Arg	Leu	His	Ser	Pro	Thr	Gln	Val	Glu	Asp	Ala	Met	Leu	Asp	Thr

				85					90					95					
Tyr	Asp	Leu	Val	Tyr	Glu	Gln	Ala	Met	Lys	Gly	Thr	Ser	His	Val	Arg				
				100				105						110					
Arg	Gln	Glu	Leu	Ala	Ala	Ile	Gln	Asp	Val	Phe	Leu	Cys	Cys	Gly	Lys				
				115				120						125					
Lys	Ser	Pro	Phe	Ser	Arg	Leu	Gly	Ser	Thr	Glu	Ala	Asp	Leu	Cys	Gln				
				130				135						140					
Gly	Glu	Glu	Ala	Ala	Arg	Glu	Asp	Cys	Leu	Gln	Gly	Ile	Arg	Ser	Phe				
Leu	Arg	Thr	His	Gln	Gln	Val	Ala	Ser	Ser	Leu	Thr	Ser	Ile	Gly	Leu				
				165															
Ala	Leu	Thr	Val	Ser	Ala	Leu	Leu	Phe	Ser	Ser	Phe	Leu	Trp	Phe	Ala				
				180				185						190					
Ile	Arg	Cys	Gly	Cys	Ser	Leu	Asp	Arg	Lys	Gly	Lys	Tyr	Thr	Leu	Thr				
				195				200						205					
Pro	Arg	Ala	Cys	Gly	Arg	Gln	Pro	Gln	Glu	Pro	Ser	Leu	Leu	Arg	Cys				
				210				215						220					
Ser	Gln	Gly	Gly	Pro	Thr	His	Cys	Leu	His	Ser	Glu	Ala	Val	Ala	Ile				
Gly	Pro	Arg	Gly	Cys	Ser	Gly	Ser	Leu	Arg	Trp	Leu	Gln	Glu	Ser	Asp				
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Ala	Ala	Pro	Leu	Pro	Leu	Ser	Cys	His	Leu	Ala	Ala	His	Arg	Ala	Leu				
				260				265						270					
Gln	Gly	Arg	Ser	Arg	Gly	Gly	Leu	Ser	Gly	Cys	Pro	Glu	Arg	Gly	Leu				
				275				280						285					
Ser	Asp																		
				290															

&lt;210&gt; 6209

&lt;211&gt; 2269

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6209

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600

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2220

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<210> 6210

<211> 165

<212> PRT

<213> Homo sapiens

<400> 6210

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			20					25					30		
Ser	Pro	Ser	Leu	Arg	Gly	Thr	His	Leu	Leu	Phe	Leu	Pro	Gln	Ala	Asp
		35					40					45			
Val	Val	Asp	Glu	Ala	Ile	Asp	Ser	Leu	Ala	Arg	Thr	Lys	Gly	Val	Met
	50					55					60				
Lys	Pro	Pro	Cys	Ser	Glu	Gly	Ser	Pro	Trp	Arg	Cys	Pro	His	Phe	Thr
65					70					75				80	
Cys	Trp	Val	Leu	Gln	Ala	Arg	Lys	Pro	Gly	Ser	Gly	Gly	Thr	Arg	Glu
				85					90					95	
Arg	Gln	Ala	Cys	Val	Trp	Thr	Ser	Ala	Gly	Ala	Ala	Ala	Leu	Arg	Leu
			100					105					110		
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		115					120					125			
Ala	His	Ser	Gln	His	Gly	Arg	Val	Ser	Ala	Val	Leu	Val	Leu	Thr	Leu
	130					135					140				
Pro	Glu	Gln	Gln	Trp	Thr	Asp	Glu	Ile	Arg	Leu	Phe	Gln	Lys	Gln	Arg
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Trp	Pro	Gln	Pro	Ser											
				165											

<210> 6211

<211> 2163

<212> DNA

<213> Homo sapiens

<400> 6211

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1380  
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1440  
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<211> 209

<212> PRT

<213> Homo sapiens

<400> 6212

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Gln	Lys	Ala	Ala	Ser	Ser	Thr	Ser	Ser	Gly	Ser	His	His	Ser	Ser	His
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Lys	Lys	Arg	Lys	Asn	Lys	Asn	Arg	His	Ser	Pro	Ser	Gly	Met	Phe	Asp
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<211> 1160

<212> DNA

<213> Homo sapiens

<400> 6213

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&lt;211&gt; 101

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6214

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			20					25					30		
Glu	Pro	Ala	Xaa	Cys	Leu	His	Gln	Thr	Gly	Pro	His	Leu	Gly	Pro	Pro
		35					40				45				
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Val	Met	Met	Glu	Gln	Ile	Arg	Pro	Trp	His	Ser	Arg	Met	Lys	Arg	Arg
65					70				75					80	
Lys	Gly	Val	Met	Glu	Gly	Gln	Ser	Leu	Glu	Pro	Ala	Ala	Ser	Ser	Gly
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Pro	Leu	Pro	Thr	Asp											
			100												

&lt;210&gt; 6215

&lt;211&gt; 651

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6215

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&lt;210&gt; 6216

&lt;211&gt; 87

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6216

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      20           25           30
Glu Ala Val Ala Ile Gly Pro Arg Gly Cys Ser Gly Ser Leu Arg Trp
      35           40           45
Leu Gln Glu Ser Asp Ala Ala Pro Leu Pro Leu Ser Cys His Leu Ala
      50           55           60
Ala His Arg Ala Leu Gln Gly Arg Ser Arg Gly Gly Leu Ser Gly Cys
65           70           75           80
Pro Glu Arg Gly Leu Ser Asp
      85

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&lt;210&gt; 6217

&lt;211&gt; 2955

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6217

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&lt;210&gt; 6218

&lt;211&gt; 133

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6218

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Ala Gln Leu Ser His Cys Lys Ser Leu Gly His Phe Glu Asn Leu Gln			
	50	55	60
Lys Tyr Lys Ala Ala Lys Asn Pro Ser Pro Thr Thr Arg Pro Val Ser			
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Arg Arg Cys Ala Ile Asn Ala Arg Asn Ala Leu Thr Ala Leu Phe Thr			
	85	90	95
Ser Ser Gly Arg Pro Pro Ser Gln Pro Asn Thr Gln Asp Lys Thr Pro			
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Ser Lys Val Thr Ala Arg Pro Ser Gln Pro Pro Leu Pro Arg Arg Ser			
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&lt;210&gt; 6219

&lt;211&gt; 2495

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6219

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<210> 6222

<211> 330

<212> PRT

<213> Homo sapiens

<400> 6222

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			20					25					30		
Lys	Leu	His	Lys	Cys	Lys	Glu	Phe	Val	Asp	Ser	Cys	Arg	Leu	Thr	Phe
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Leu	Ile	Gln	Asp	Gln	Asn	Ala	Gln	Thr	Arg	Trp	Lys	Gln	Gly	Arg	Tyr
65					70				75					80	
Asp	Glu	Asp	Gly	Lys	Pro	Phe	Asn	Gln	Arg	Ser	Leu	Leu	Leu	Gly	His
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<210> 6223
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<212> DNA
<213> Homo sapiens
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<210> 6224

<211> 156

<212> PRT

<213> Homo sapiens

<400> 6224

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			20					25					30		
Ala	Glu	Gly	His	Val	Gly	Gln	Gly	Ala	Pro	Gly	Leu	Met	Gly	Asn	Met
		35				40					45				
Asn	Pro	Glu	Gly	Gly	Val	Asn	His	Glu	Asn	Gly	Met	Asn	Arg	Asp	Gly
	50					55				60					
Gly	Met	Ile	Pro	Glu	Gly	Gly	Gly	Gly	Asn	Gln	Glu	Pro	Arg	Gln	Gln
65				70				75						80	
Pro	Gln	Pro	Pro	Pro	Glu	Glu	Pro	Ala	Gln	Ala	Ala	Met	Glu	Gly	Pro
			85					90					95		
Gln	Pro	Glu	Asn	Met	Gln	Pro	Arg	Thr	Arg	Arg	Thr	Lys	Phe	Thr	Leu
		100						105					110		
Leu	Gln	Val	Glu	Glu	Leu	Glu	Ser	Val	Phe	Arg	His	Thr	Gln	Tyr	Pro
		115					120					125			
Asp	Val	Pro	Thr	Arg	Arg	Glu	Leu	Ala	Glu	Asn	Leu	Gly	Val	Thr	Glu
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<210> 6225

<211> 3851

<212> DNA

<213> Homo sapiens

<400> 6225

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<211> 246

<212> PRT

<213> Homo sapiens

<400> 6226

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Gln	Gly	Asp	Phe	Ile	Lys	Cys	Val	Glu	Gln	Lys	Thr	Asp	Ala	Leu	Gly	35	40	45	
Lys	Gln	Ser	Val	Asn	Arg	Gly	Phe	Thr	Lys	Asp	Lys	Thr	Leu	Ser	Ser	50	55	60	
Ile	Phe	Asn	Ile	Glu	Met	Val	Lys	Glu	Lys	Thr	Ala	Glu	Glu	Ile	Lys	65	70	75	80
Gln	Ile	Trp	Gln	Gln	Tyr	Phe	Ala	Ala	Lys	Asp	Thr	Val	Tyr	Ala	Val	85	90	95	
Ile	Pro	Ala	Glu	Lys	Phe	Asp	Leu	Ile	Trp	Asn	Arg	Ala	Gln	Ser	Cys	100	105	110	
Pro	Thr	Phe	Leu	Cys	Ala	Leu	Pro	Arg	Arg	Glu	Gly	Tyr	Glu	Phe	Phe	115	120	125	
Val	Gly	Gln	Trp	Thr	Gly	Thr	Glu	Leu	His	Phe	Thr	Ala	Leu	Ile	Asn	130	135	140	
Ile	Gln	Thr	Arg	Gly	Glu	Ala	Ala	Ala	Ser	Gln	Leu	Ile	Leu	Tyr	His	145	150	155	160
Tyr	Pro	Glu	Leu	Lys	Glu	Glu	Lys	Gly	Ile	Val	Leu	Met	Thr	Ala	Glu	165	170	175	
Met	Asp	Ser	Thr	Phe	Leu	Asn	Val	Ala	Glu	Ala	Gln	Cys	Ile	Ala	Asn	180	185	190	
Gln	Val	Gln	Leu	Phe	Tyr	Ala	Thr	Asp	Arg	Lys	Glu	Thr	Tyr	Gly	Leu	195	200	205	
Val	Glu	Thr	Phe	Asn	Leu	Arg	Pro	Asn	Glu	Phe	Lys	Tyr	Met	Ser	Val	210	215	220	
Ile	Ala	Glu	Leu	Glu	Gln	Ser	Gly	Leu	Gly	Ala	Glu	Leu	Lys	Cys	Ala	225	230	235	240
Gln	Asn	Gln	Asn	Lys	Thr														

245

&lt;210&gt; 6227

&lt;211&gt; 830

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6227

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 780  
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 830

&lt;210&gt; 6228

&lt;211&gt; 271

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6228

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Gly	Gly	Ser	Thr	Tyr	Arg	Ala	Val	Ile	Phe	Asp	Met	Gly	Gly	Val	Leu
			20					25					30		
Ile	Pro	Ser	Pro	Gly	Arg	Val	Ala	Ala	Glu	Trp	Glu	Val	Gln	Asn	Arg
		35				40					45				
Ile	Pro	Ser	Gly	Thr	Ile	Leu	Lys	Ala	Leu	Met	Glu	Gly	Gly	Glu	Asn
	50					55				60					
Gly	Pro	Trp	Met	Arg	Phe	Met	Arg	Ala	Glu	Ile	Thr	Ala	Glu	Gly	Phe
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<212> DNA
<213> Homo sapiens
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720

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<211> 944

<212> PRT

<213> Homo sapiens

<400> 6230

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Ser	Leu	Val	Ser	Ala	Leu	Asp	Ser	Met	Cys	Ser	Ala	Leu	Ser	Lys	Leu
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Asn	Ala	Glu	Val	Ala	Cys	Val	Ala	Val	His	Asp	Glu	Ser	Ala	Phe	Val
	50				55					60					
Val	Gly	Thr	Glu	Lys	Gly	Arg	Met	Phe	Leu	Asn	Ala	Arg	Lys	Glu	Leu
65				70					75					80	
Gln	Ser	Asp	Phe	Leu	Arg	Phe	Cys	Arg	Gly	Pro	Pro	Trp	Lys	Asp	Pro
			85					90					95		
Glu	Ala	Glu	His	Pro	Lys	Lys	Val	Gln	Arg	Gly	Glu	Gly	Gly	Gly	Arg
		100					105					110			
Ser	Leu	Pro	Arg	Ser	Ser	Leu	Glu	His	Gly	Ser	Asp	Val	Tyr	Leu	Leu
		115				120						125			
Arg	Lys	Met	Val	Glu	Glu	Val	Phe	Asp	Val	Leu	Tyr	Ser	Glu	Ala	Leu
	130				135					140					
Gly	Arg	Ala	Ser	Val	Val	Pro	Leu	Pro	Tyr	Glu	Arg	Leu	Leu	Arg	Glu
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5414

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<211> 471
<212> DNA
<213> Homo sapiens
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<210> 6232

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<212> PRT

<213> Homo sapiens

<400> 6232

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Gly	Asp	Arg	Thr	Arg	Pro	Cys	Leu	Phe	Lys	Lys	Lys	Lys	Lys	Ala	Gln
			20					25					30		
Lys	Lys	Ser	Met	Leu	Gly	Gln	Lys	Ser	Gly	Pro	Ser	Gly	Leu	Leu	Thr
		35				40						45			
Trp	Arg	Arg	Lys	Arg	Gly	Pro	Lys	Pro	Pro	Val	Ala	Pro	Ile	Ser	Ile
	50					55					60				
Trp	Asn	Gly	Thr	Thr	Pro	Arg	Gly	Glu	Pro	Pro	Pro	Asn	His	Ser	Ser
65					70				75					80	
Lys	Lys	Gly	Thr	Lys	Lys	Trp	Ala	Leu	Asp	Phe	Ser	Thr	Pro	Glu	Thr
			85					90					95		
Gln	Phe	Pro	Pro	Pro	Gly	Arg	Pro	Phe	Leu	Gly	Ile	Pro	Thr	Trp	Asp
		100						105					110		
Pro	Thr	Trp	Ala	Tyr	Ser	Gly	Pro	Tyr	Leu	Phe	Leu	Val	Gly	Ile	Gly
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<210> 6233

<211> 894

<212> DNA

<213> Homo sapiens

<400> 6233

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<210> 6234

<211> 230

<212> PRT

<213> Homo sapiens

<400> 6234

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			20					25					30		
Glu	Ala	Leu	Met	Leu	Arg	Asp	Gly	Arg	Phe	Ala	Cys	Ala	Ile	Cys	Pro
		35					40					45			
His	Arg	Pro	Val	Leu	Asp	Thr	Leu	Ala	Met	Leu	Thr	Ala	His	Arg	Ala
	50					55					60				
Gly	Lys	Lys	His	Leu	Ser	Ser	Leu	Gln	Leu	Phe	Tyr	Gly	Lys	Lys	Gln
65				70						75					80
Pro	Gly	Lys	Glu	Arg	Lys	Gln	Asn	Pro	Lys	His	Gln	Asn	Glu	Leu	Arg
			85					90						95	
Arg	Glu	Glu	Thr	Lys	Ala	Glu	Ala	Pro	Leu	Leu	Thr	Gln	Thr	Arg	Leu
			100					105					110		
Ile	Thr	Gln	Ser	Ala	Leu	His	Arg	Ala	Pro	His	Tyr	Asn	Ser	Cys	Cys
		115					120					125			
Arg	Arg	Lys	Tyr	Arg	Pro	Glu	Ala	Pro	Gly	Pro	Ser	Val	Ser	Leu	Ser
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Pro	Met	Pro	Pro	Ser	Glu	Val	Lys	Leu	Gln	Ser	Gly	Lys	Ile	Ser	Arg
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Glu	Pro	Glu	Pro	Ala	Ala	Gly	Pro	Gln	Ala	Glu	Glu	Ser	Ala	Thr	Val
			165					170					175		
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Tyr	Leu	Thr	Leu	Arg	Ser	Ser	Gly	Trp	Ile	Pro	Asp	Gly	Arg	Gly	Arg
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Pro Asp Leu Pro Leu Asp  
225 230

<210> 6235  
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<212> DNA  
<213> Homo sapiens

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<210> 6236

<211> 820

<212> PRT

<213> Homo sapiens

<400> 6236

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			20					25					30		
Pro	Glu	Gly	Gly	Leu	Pro	Gly	Pro	Trp	Ala	Leu	His	Arg	Gly	Arg	Lys
		35				40						45			
Lys	Ala	Thr	Gly	Ser	Pro	Val	Ser	Ile	Phe	Val	Tyr	Asp	Val	Lys	Pro
	50					55					60				
Gly	Ala	Glu	Glu	Gln	Thr	Gln	Val	Ala	Lys	Ala	Ala	Phe	Lys	Arg	Phe
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Lys	Thr	Leu	Arg	His	Pro	Asn	Ile	Leu	Ala	Tyr	Ile	Asp	Gly	Leu	Glu
				85					90					95	
Thr	Glu	Lys	Cys	Leu	His	Val	Val	Thr	Glu	Ala	Val	Thr	Pro	Leu	Gly
			100					105					110		
Ile	Tyr	Leu	Lys	Ala	Arg	Val	Glu	Ala	Gly	Gly	Leu	Lys	Glu	Leu	Glu
		115					120					125			
Ile	Ser	Trp	Gly	Leu	His	Gln	Ile	Val	Lys	Ala	Leu	Ser	Phe	Leu	Val
	130					135					140				
Asn	Asp	Cys	Ser	Leu	Ile	His	Asn	Asn	Val	Cys	Met	Ala	Ala	Val	Phe
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Val	Asp	Arg	Ala	Gly	Glu	Trp	Lys	Leu	Gly	Gly	Leu	Asp	Tyr	Met	Tyr
			165						170					175	
Ser	Ala	Gln	Gly	Asn	Gly	Gly	Gly	Pro	Pro	Arg	Lys	Gly	Ile	Pro	Glu
		180					185						190		
Leu	Glu	Gln	Tyr	Asp	Pro	Pro	Glu	Leu	Ala	Asp	Ser	Ser	Gly	Arg	Val
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Val	Arg	Glu	Lys	Trp	Ser	Ala	Asp	Met	Trp	Arg	Leu	Gly	Cys	Leu	Ile
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Trp	Glu	Val	Phe	Asn	Gly	Pro	Leu	Pro	Arg	Ala	Ala	Ala	Leu	Arg	Asn

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Cys	Arg	Ala	Pro	Gly	Gly	Phe	Met	Ser	Asn	Arg	Phe	Val	Glu	Thr	Asn
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Leu	Phe	Leu	Glu	Glu	Ile	Gln	Ile	Lys	Glu	Pro	Ala	Glu	Lys	Gln	Lys
	290					295				300					
Phe	Phe	Gln	Glu	Leu	Ser	Lys	Ser	Leu	Asp	Ala	Phe	Pro	Glu	Asp	Phe
305					310					315					320
Cys	Arg	His	Lys	Val	Leu	Pro	Gln	Leu	Leu	Thr	Ala	Phe	Glu	Phe	Gly
			325					330				335			
Asn	Ala	Gly	Ala	Val	Val	Leu	Thr	Pro	Leu	Phe	Lys	Val	Gly	Lys	Phe
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Leu	Ser	Ala	Glu	Glu	Tyr	Gln	Gln	Lys	Ile	Ile	Pro	Val	Val	Val	Lys
	355					360					365				
Met	Phe	Ser	Ser	Thr	Asp	Arg	Ala	Met	Arg	Ile	Arg	Leu	Leu	Gln	Gln
	370				375					380					
Met	Glu	Gln	Phe	Ile	Gln	Tyr	Leu	Asp	Glu	Pro	Thr	Val	Asn	Thr	Gln
385					390					395					400
Ile	Phe	Pro	His	Val	Val	His	Gly	Phe	Leu	Asp	Thr	Asn	Pro	Ala	Ile
			405					410				415			
Arg	Glu	Gln	Thr	Val	Lys	Ser	Met	Leu	Leu	Leu	Ala	Pro	Lys	Leu	Asn
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Glu	Ala	Asn	Leu	Asn	Val	Glu	Leu	Met	Lys	His	Phe	Ala	Arg	Leu	Gln
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Ala	Lys	Asp	Glu	Gln	Gly	Pro	Ile	Arg	Cys	Asn	Thr	Thr	Val	Cys	Leu
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Gly	Lys	Ile	Gly	Ser	Tyr	Leu	Ser	Ala	Ser	Thr	Arg	His	Arg	Val	Leu
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Thr	Ser	Ala	Phe	Ser	Arg	Ala	Thr	Arg	Asp	Pro	Phe	Ala	Pro	Ser	Arg
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Glu	Glu	Asp	Lys	Asp	Thr	Ala	Glu	Asp	Ser	Ser	Thr	Ala	Asp	Arg	Trp
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<400> 6238  
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Ser	Thr	Pro	Lys	Asn	Gly	Met	Ser	Ser	Lys	Ser	Arg	Lys	Arg	Ile	Met
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Leu	Leu	Tyr	Cys	Asn	Ile	Pro	Ser	Val	Ala	Glu	Arg	Ser	Met	Glu	Gly
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His	Ala	Pro	His	His	Phe	Lys	Leu	Val	Ser	Val	His	Val	Phe	Ile	Arg
			85					90						95	
His	Gly	Asp	Arg	Tyr	Pro	Leu	Tyr	Val	Ile	Pro	Lys	Thr	Lys	Arg	Pro
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Glu	Ile	Asp	Cys	Thr	Leu	Val	Ala	Asn	Arg	Lys	Pro	Tyr	His	Pro	Lys
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Leu	Glu	Ala	Phe	Ile	Ser	His	Met	Leu	Arg	Gly	Ser	Gly			
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&lt;210&gt; 6239

&lt;211&gt; 911

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6239

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&lt;211&gt; 245

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&lt;213&gt; Homo sapiens

&lt;400&gt; 6242

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&lt;213&gt; Homo sapiens

&lt;400&gt; 6245

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Ile	Asp	Phe	Leu	Gln	Ala	Lys	Met	Asp	Gln	Pro	Ala	Lys	Lys	Lys	Lys
		500						505					510		
Val	Pro	Leu	Gln	Tyr	Asn	Glu	Leu	Lys	Leu	Ala	Leu	Glu	Lys	Glu	Lys
		515						520					525		
Ala	Arg	Cys	Ala	Glu	Leu	Glu	Glu	Ala	Leu	Gln	Lys	Thr	Arg	Ile	Glu
	530						535						540		
Leu	Arg	Ser	Ala	Arg	Glu	Glu	Ala	Ala	His	Arg	Lys	Ala	Thr	Asp	His
545					550					555					560
Pro	His	Pro	Ser	Thr	Pro	Ala	Thr	Ala	Arg	Gln	Gln	Ile	Ala	Met	Ser
			565							570				575	
Ala	Ile	Val	Arg	Ser	Pro	Glu	His	Gln	Pro	Ser	Ala	Met	Ser	Leu	Leu

			580					585					590				
Ala	Pro	Pro	Ser	Ser	Arg	Arg	Lys	Glu	Ser	Ser	Thr	Pro	Glu	Glu	Phe		
		595					600					605					
Ser	Arg	Arg	Leu	Lys	Glu	Arg	Met	His	His	Asn	Ile	Pro	His	Arg	Phe		
	610					615					620						
Asn	Val	Gly	Leu	Asn	Met	Arg	Ala	Thr	Lys	Cys	Ala	Val	Cys	Leu	Asp		
625					630					635					640		
Thr	Val	His	Phe	Gly	Arg	Gln	Ala	Ser	Lys	Cys	Leu	Glu	Cys	Gln	Val		
				645					650					655			
Met	Cys	His	Pro	Lys	Cys	Ser	Thr	Cys	Leu	Pro	Ala	Thr	Cys	Gly	Leu		
			660					665					670				
Pro	Ala	Glu	Tyr	Ala	Thr	His	Phe	Thr	Glu	Ala	Phe	Cys	Arg	Asp	Lys		
		675					680				685						
Met	Asn	Ser	Pro	Gly	Leu	Gln	Thr	Lys	Glu	Pro	Ser	Ser	Ser	Leu	His		
	690					695					700						
Leu	Glu	Gly	Trp	Met	Lys	Val	Pro	Arg	Asn	Asn	Lys	Arg	Gly	Gln	Gln		
705					710				715					720			
Gly	Trp	Asp	Arg	Lys	Tyr	Ile	Val	Leu	Glu	Gly	Ser	Lys	Val	Leu	Ile		
				725					730					735			
Tyr	Asp	Asn	Glu	Ala	Arg	Glu	Ala	Gly	Gln	Arg	Pro	Val	Glu	Glu	Phe		
		740					745					750					
Glu	Leu	Cys	Leu	Pro	Asp	Gly	Asp	Val	Ser	Ile	His	Gly	Ala	Val	Gly		
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Ala	Ser	Glu	Leu	Ala	Asn	Thr	Ala	Lys	Ala	Asp	Val	Pro	Tyr	Ile	Leu		
	770					775					780						
Lys	Met	Glu	Ser	His	Pro	His	Thr	Thr	Cys	Trp	Pro	Gly	Arg	Thr	Leu		
785					790				795					800			
Tyr	Leu	Leu	Ala	Pro	Ser	Phe	Pro	Asp	Lys	Gln	Arg	Trp	Val	Thr	Ala		
				805					810					815			
Leu	Glu	Ser	Val	Val	Ala	Gly	Gly	Arg	Val	Ser	Arg	Glu	Lys	Ala	Glu		
			820				825					830					
Ala	Asp	Ala	Lys	Leu	Leu	Gly	Asn	Ser	Leu	Leu	Lys	Leu	Glu	Gly	Asp		
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Asp	Arg	Leu	Asp	Met	Asn	Cys	Thr	Leu	Pro	Phe	Ser	Asp	Gln	Val	Val		
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Leu	Val	Gly	Thr	Glu	Glu	Gly	Leu	Tyr	Ala	Leu	Asn	Val	Leu	Lys	Asn		
865					870				875					880			
Ser	Leu	Thr	His	Val	Pro	Gly	Ile	Gly	Ala	Val	Phe	Gln	Ile	Tyr	Ile		
				885					890					895			
Ile	Lys	Asp	Leu	Glu	Lys	Leu	Leu	Met	Ile	Ala	Gly	Glu	Glu	Arg	Ala		
			900				905					910					
Leu	Cys	Leu	Val	Asp	Val	Lys	Lys	Val	Lys	Gln	Ser	Leu	Ala	Gln	Ser		
		915					920					925					
His	Leu	Pro	Ala	Gln	Pro	Asp	Ile	Ser	Pro	Asn	Ile	Phe	Glu	Ala	Val		
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Lys	Gly	Cys	His	Leu	Phe	Gly	Ala	Gly	Lys	Ile	Glu	Asn	Gly	Leu	Cys		
945					950				955					960			
Ile	Cys	Ala	Ala	Met	Pro	Ser	Lys	Val	Val	Ile	Leu	Arg	Tyr	Asn	Glu		
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Asn	Leu	Ser	Lys	Tyr	Cys	Ile	Arg	Lys	Glu	Ile	Glu	Thr	Ser	Glu	Pro		
			980					985				990					
Cys	Ser	Cys	Ile	His	Phe	Thr	Asn	Tyr	Ser	Ile	Leu	Ile	Gly	Thr	Asn		
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Lys	Phe	Tyr	Glu	Ile	Asp	Met	Lys	Gln	Tyr	Thr	Leu	Glu	Glu	Phe	Leu		

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Asp Lys Asn Asp His Ser Leu Ala Pro Ala Val Phe Ala Ala Ser Ser
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Asn Ser Phe Pro Val Ser Ile Val Gln Val Asn Ser Ala Gly Gln Arg
      1045      1050      1055
Glu Glu Tyr Leu Leu Cys Phe His Glu Phe Gly Val Phe Val Asp Ser
      1060      1065      1070
Tyr Gly Arg Arg Ser Arg Thr Asp Asp Leu Lys Trp Ser Arg Leu Pro
      1075      1080      1085
Leu Ala Phe Ala Tyr Arg Glu Pro Tyr Leu Phe Val Thr His Phe Asn
      1090      1095      1100
Ser Leu Glu Val Ile Glu Ile Gln Ala Arg Ser Ser Ala Gly Thr Pro
1105      1110      1115      1120
Ala Arg Ala Tyr Leu Asp Ile Pro Asn Pro Arg Tyr Leu Gly Pro Ala
      1125      1130      1135
Ile Ser Ser Gly Ala Ile Tyr Leu Ala Ser Ser Tyr Gln Asp Lys Leu
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Arg Val Ile Cys Cys Lys Gly Asn Leu Val Lys Glu Ser Gly Thr Glu
      1155      1160      1165
His His Arg Gly Pro Ser Thr Ser Arg Ser Ser Pro Asn Lys Arg Gly
      1170      1175      1180
Pro Pro Thr Tyr Asn Glu His Ile Thr Lys Arg Val Ala Ser Ser Pro
1185      1190      1195      1200
Ala Pro Pro Glu Gly Pro Ser His Pro Arg Glu Pro Ser Thr Pro His
      1205      1210      1215
Arg Tyr Arg Glu Gly Arg Thr Glu Leu Arg Arg Asp Lys Ser Pro Gly
      1220      1225      1230
Arg Pro Leu Glu Arg Glu Lys Ser Pro Gly Arg Met Leu Ser Thr Arg
      1235      1240      1245
Arg Glu Arg Ser Pro Gly Arg Leu Phe Glu Asp Ser Ser Arg Gly Arg
      1250      1255      1260
Leu Pro Ala Gly Ala Val Arg Thr Pro Leu Ser Gln Val Asn Lys Val
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Trp Asp Gln Ser Ser Val
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&lt;210&gt; 6247

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6247

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120
aaggctgcat gggggtcctt gcccgggagg cgccccacct agagaaacag ccggcagccg
180
gccgcagcg cgttctcccg ggagagaaat attattcatc tgtgccagag gaaggagggg
240
caacccatgt ctatcgttat cacagaggcg agtcgaagct gcacatgtgc ttggacatag
300
ggaatggtca gagaaaagac agaaaaaaga catcccttgg tcctggaggc agctatcaaa
360

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tatcagagca tgctccagag gcaccccagc ctgtgagtag ggaactgctt acgcactggg  
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<210> 6248

<211> 142

<212> PRT

<213> Homo sapiens

<400> 6248

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Ser	Ala	Gly	Glu	Gly	Gln	Glu	Glu	Gly	Gly	Gly	Leu	Ala	Cys	Pro	Gly
		20						25					30		
Ala	Ser	Gln	Arg	Leu	His	Gly	Gly	Pro	Cys	Pro	Gly	Gly	Ala	Pro	Pro
		35				40					45				
Arg	Glu	Thr	Ala	Gly	Ser	Arg	Pro	Ala	Ala	Arg	Ser	Pro	Gly	Arg	Glu
	50					55					60				
Ile	Leu	Phe	Ile	Cys	Ala	Arg	Gly	Arg	Arg	Gly	Asn	Pro	Cys	Leu	Ser
65				70						75				80	
Leu	Ser	Gln	Arg	Arg	Val	Glu	Ala	Ala	His	Val	Leu	Gly	His	Arg	Glu
			85						90					95	
Trp	Ser	Glu	Lys	Arg	Gln	Lys	Lys	Asp	Ile	Pro	Trp	Ser	Trp	Arg	Gln
		100						105					110		
Leu	Ser	Asn	Ile	Arg	Ala	Cys	Ser	Arg	Gly	Ile	Pro	Ala	Cys	Glu	Tyr
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<210> 6249

<211> 1217

<212> DNA

<213> Homo sapiens

<400> 6249

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 180  
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 300  
 attaatgagt ccaaacttca ggaactggaa aagtaccggg gtattcaaac tcgtgtcctt  
 360  
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 420  
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 480

tgggacttct cgatgaatct caatgtgcgc agcatgtacc tgatgatcaa ggcattcctt  
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 600  
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 660  
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 720  
 ggaacagttg atacgccatc tctacaagaa agaatacaag ccagaggaaa tcctgaagag  
 780  
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 840  
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 960  
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<210> 6250

<211> 245

<212> PRT

<213> Homo sapiens

<400> 6250

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Gly	Ile	Gly	Gln	Ala	Ala	Ala	Leu	Ala	Phe	Ala	Arg	Glu	Gly	Ala	Lys
			20					25					30		
Val	Ile	Ala	Thr	Asp	Ile	Asn	Glu	Ser	Lys	Leu	Gln	Glu	Leu	Glu	Lys
		35				40					45				
Tyr	Pro	Gly	Ile	Gln	Thr	Arg	Val	Leu	Asp	Val	Thr	Lys	Lys	Lys	Gln
	50					55					60				
Ile	Asp	Gln	Phe	Ala	Asn	Glu	Val	Glu	Arg	Leu	Asp	Val	Leu	Phe	Asn
65					70					75				80	
Val	Ala	Gly	Phe	Val	His	His	Gly	Thr	Val	Leu	Asp	Cys	Glu	Glu	Lys
				85					90					95	
Asp	Trp	Asp	Phe	Ser	Met	Asn	Leu	Asn	Val	Arg	Ser	Met	Tyr	Leu	Met
			100					105					110		
Ile	Lys	Ala	Phe	Leu	Pro	Lys	Met	Leu	Ala	Gln	Lys	Ser	Gly	Asn	Ile
		115					120					125			
Ile	Asn	Met	Ser	Ser	Val	Ala	Ser	Ser	Val	Lys	Gly	Val	Val	Asn	Arg
	130					135					140				
Cys	Val	Tyr	Ser	Thr	Thr	Lys	Ala	Ala	Val	Ile	Gly	Leu	Thr	Lys	Ser
145					150					155				160	
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<210> 6251
<211> 1611
<212> DNA
<213> Homo sapiens
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120					
ttttgtgact	ttttccgttt	ctttacaata	ggacttctct	cagtgtgtga	caccagtgta
180					
gggctgaccc	atcctcctct	cctttgcttc	accaggaatg	tcattcagaca	catggcttga
240					
ccttggaagg	gcccagtctg	tctgacaggg	ctttgcagac	ccggcggcta	ttgctttgaa
300					
aaggaggaga	aagaccacgc	acgggcagca	gcctggaggg	acccggtggg	ctgctgagag
360					
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420					
gctgggagcc	ctaggccgga	ctgcatttcc	gctcccgcag	gagactttct	atgaaataaa
480					
tatagaaaag	agggcatccc	ccagccccac	agcacaagac	cctggccctc	agcgctggac
540					
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600					
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660					
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720					
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780					
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840					
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900					
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960					
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1020					
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1080					

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 1611

&lt;210&gt; 6252

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6252

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Ala	Lys	Ser	Ser	Lys	Gly	Lys	Gly	Arg	Gly	His	Ser	Gly	Glu	Asn	Ser
			20					25					30		
Ile	Ser	Gly	Lys	Thr	Gly	Ile	His	Phe	Lys	Ile	Ser	Ala	Gln	Lys	Gly
		35					40					45			
Ser	Arg	Ala	Val	Leu	Lys	Pro	Gly	Arg	Gln	Gly	Pro	Pro	Ile	Pro	Thr
	50					55					60				
Ile	Leu	Leu	Ser	Pro	Ser	Pro	Pro	Trp	Arg	Thr	Leu	Ala	Arg	Val	Tyr
65					70				75					80	
Arg	Glu	Ser	His	His	Ile	Tyr	Tyr	Glu	Ala	Arg	Ala	Leu	Gly	Tyr	Val
				85					90					95	
Pro	Thr	Ile	Pro												
															100

&lt;210&gt; 6253

&lt;211&gt; 1953

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6253

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360  
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960  
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1020  
ccttaaggac acagccaaat cttaagtact gtgtgaccac tcttggtgtt atcacatagt  
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1260  
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1320  
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 1920  
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 1953

<210> 6254  
 <211> 216  
 <212> PRT  
 <213> Homo sapiens

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 35 40 45  
 Glu Gly Glu Asp Leu Asn Glu Trp Ile Ala Val Asn Thr Val Asp Phe  
 50 55 60  
 Phe Asn Gln Ile Asn Met Leu Tyr Gly Thr Ile Thr Glu Phe Cys Thr  
 65 70 75 80  
 Glu Ala Ser Cys Pro Val Met Ser Ala Gly Pro Arg Tyr Glu Tyr His  
 85 90 95  
 Trp Ala Asp Gly Thr Asn Ile Lys Lys Pro Ile Lys Cys Ser Ala Pro  
 100 105 110  
 Lys Tyr Ile Asp Tyr Leu Met Thr Trp Val Gln Asp Gln Leu Asp Asp  
 115 120 125  
 Glu Thr Leu Phe Pro Ser Lys Ile Gly Val Pro Phe Pro Lys Asn Phe  
 130 135 140  
 Met Ser Val Ala Lys Thr Ile Leu Lys Arg Leu Phe Arg Val Tyr Ala  
 145 150 155 160  
 His Ile Tyr His Gln His Phe Asp Ser Val Met Gln Leu Gln Glu Glu  
 165 170 175  
 Ala His Leu Asn Thr Ser Phe Lys His Phe Ile Phe Phe Val Gln Glu  
 180 185 190  
 Phe Asn Leu Ile Asp Arg Arg Glu Leu Ala Pro Leu Gln Glu Leu Ile  
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 <212> DNA  
 <213> Homo sapiens

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His Leu Met Gly Cys Thr Lys Ser Ala Glu Pro Gly Thr Glu Thr Ser
65          70          75          80
Gln Val Asn Ser Phe Ser Asp Leu Lys Ala Ser Thr Leu Val His Lys
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<210> 6264

<211> 654

<212> PRT

<213> Homo sapiens

<400> 6264

Met	Ala	Ser	Asn	Met	Asp	Arg	Glu	Met	Ile	Leu	Ala	Asp	Phe	Gln	Ala	1	5	10	15
Cys	Thr	Gly	Ile	Glu	Asn	Ile	Asp	Glu	Ala	Ile	Thr	Leu	Leu	Glu	Gln	20	25	30	
Asn	Asn	Trp	Asp	Leu	Val	Ala	Ala	Ile	Asn	Gly	Val	Ile	Pro	Gln	Glu	35	40	45	
Asn	Gly	Ile	Leu	Gln	Ser	Glu	Tyr	Gly	Gly	Glu	Thr	Ile	Pro	Gly	Pro	50	55	60	
Ala	Phe	Asn	Pro	Ala	Ser	His	Pro	Ala	Ser	Ala	Pro	Thr	Ser	Ser	Ser	65	70	75	80
Ser	Ser	Ala	Phe	Arg	Pro	Val	Met	Pro	Ser	Arg	Gln	Ile	Val	Glu	Arg	85	90	95	
Gln	Pro	Arg	Met	Leu	Asp	Phe	Arg	Val	Glu	Tyr	Arg	Asp	Arg	Asn	Val	100	105	110	
Asp	Val	Val	Leu	Glu	Asp	Thr	Cys	Thr	Val	Gly	Glu	Ile	Lys	Gln	Ile	115	120	125	
Leu	Glu	Asn	Glu	Leu	Gln	Ile	Pro	Val	Ser	Lys	Met	Leu	Leu	Lys	Gly	130	135	140	
Trp	Lys	Thr	Gly	Asp	Val	Glu	Asp	Ser	Thr	Val	Leu	Lys	Ser	Leu	His	145	150	155	160
Leu	Pro	Lys	Asn	Asn	Ser	Leu	Tyr	Val	Leu	Thr	Pro	Asp	Leu	Pro	Pro	165	170	175	
Pro	Ser	Ser	Ser	Ser	His	Ala	Gly	Ala	Leu	Gln	Glu	Ser	Leu	Asn	Gln	180	185	190	
Asn	Phe	Met	Leu	Ile	Ile	Thr	His	Arg	Glu	Val	Gln	Arg	Glu	Tyr	Asn	195	200	205	
Leu	Asn	Phe	Ser	Gly	Ser	Ser	Thr	Ile	Gln	Glu	Val	Lys	Arg	Asn	Val	210	215	220	
Tyr	Asp	Leu	Thr	Ser	Ile	Pro	Val	Arg	His	Gln	Leu	Trp	Glu	Gly	Trp	225	230	235	240
Pro	Thr	Ser	Ala	Thr	Asp	Asp	Ser	Met	Cys	Leu	Ala	Glu	Ser	Gly	Leu	245	250	255	
Ser	Tyr	Pro	Cys	His	Arg	Leu	Thr	Val	Gly	Arg	Arg	Ser	Ser	Pro	Ala	260	265	270	
Gln	Thr	Arg	Glu	Gln	Ser	Glu	Glu	Gln	Ile	Thr	Asp	Val	His	Met	Val				



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<210> 6265
<211> 1344
<212> DNA
<213> Homo sapiens
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5451

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tctgtggagg aagagatgca aagtacagtt cgagagcaca gagatggagg tcatgcaggt  
180  
ggaatcttca acagatacaa tattctcaag attcagaagg tttgtaacaa gaaactatgg  
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300  
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gtttacaaaa ttttttcata tgtattgttc atctatactt catcttacat cgtcatgatt  
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1344

&lt;210&gt; 6266

&lt;211&gt; 240

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6266

Xaa Ala Leu Pro Ala Ser His Arg Pro Gly Gln Gln Gly Leu Asn Pro

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      1           5           10           15
Tyr Leu Thr Leu Asn Thr Ser Gly Ser Gly Thr Ile Leu Ile Asp Leu
      20           25           30
Ser Pro Asp Asp Lys Glu Phe Gln Ser Val Glu Glu Glu Met Gln Ser
      35           40           45
Thr Val Arg Glu His Arg Asp Gly Gly His Ala Gly Gly Ile Phe Asn
      50           55           60
Arg Tyr Asn Ile Leu Lys Ile Gln Lys Val Cys Asn Lys Lys Leu Trp
      65           70           75           80
Glu Arg Tyr Thr His Arg Arg Lys Glu Val Ser Glu Glu Asn His Asn
      85           90           95
His Ala Asn Glu Arg Met Leu Phe His Gly Ser Pro Phe Val Asn Ala
      100          105          110
Ile Ile His Lys Gly Phe Asp Glu Arg His Ala Tyr Ile Gly Gly Met
      115          120          125
Phe Gly Ala Gly Ile Tyr Phe Ala Glu Asn Ser Ser Lys Ser Asn Gln
      130          135          140
Tyr Val Tyr Gly Ile Gly Gly Gly Thr Gly Cys Pro Val His Lys Asp
      145          150          155          160
Arg Ser Cys Tyr Ile Cys His Arg Gln Leu Leu Phe Cys Arg Val Thr
      165          170          175
Leu Gly Lys Ser Phe Leu Gln Phe Ser Ala Met Lys Met Ala His Ser
      180          185          190
Pro Pro Gly His His Ser Val Thr Gly Arg Pro Ser Val Asn Gly Leu
      195          200          205
Ala Leu Ala Glu Tyr Val Ile Tyr Arg Gly Glu Gln Ala Tyr Pro Glu
      210          215          220
Tyr Leu Ile Thr Tyr Gln Ile Met Arg Pro Glu Gly Met Val Asp Gly
      225          230          235          240

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&lt;210&gt; 6267

&lt;211&gt; 328

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6267

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120
gatgagcctt tctgcagtt ccgaaggaac gtgttcttcc caaagcggcg ggagctccag
180
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240
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328

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&lt;210&gt; 6268

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6268

Ala Glu Trp Gly Cys Pro Ala Val Thr Gln Pro Leu Ser Pro Asp Glu  
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 Pro Phe Leu Gln Phe Arg Arg Asn Val Phe Phe Pro Lys Arg Arg Glu  
 20 25 30  
 Leu Gln Ile His Asp Glu Glu Val Leu Arg Leu Leu Tyr Glu Glu Ala  
 35 40 45  
 Lys Gly Asn Val Leu Ala Ala Arg Tyr Pro Cys Asp Val Glu Asp Cys  
 50 55 60  
 Glu Ala Leu Gly Ala Leu Val Cys Arg Val Gln Leu Gly Pro Tyr Gln  
 65 70 75 80  
 Pro Gly Arg

&lt;210&gt; 6269

&lt;211&gt; 923

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6269

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 120  
 aacgtgatgg ttctccagga cgaaaatttt gtcagtaaag aagagttcca ggcagtggag  
 180  
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 240  
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 300  
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 360  
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 420  
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 480  
 cagaaacaga tcttcagccc accaccagcc ggctccgttg caggaatcac atgtctgact  
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 923

&lt;210&gt; 6270

<211> 307  
 <212> PRT  
 <213> Homo sapiens

<400> 6270

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			20					25					30		
Glu	Glu	Leu	Ile	His	Gln	Leu	Arg	Asn	Val	Met	Val	Leu	Gln	Asp	Glu
			35				40					45			
Asn	Phe	Val	Ser	Lys	Glu	Glu	Phe	Gln	Ala	Val	Glu	Lys	Lys	Leu	Val
	50					55					60				
Glu	Glu	Lys	Ala	Ala	His	Ala	Lys	Thr	Lys	Val	Leu	Leu	Ala	Lys	Glu
65					70					75					80
Glu	Glu	Lys	Leu	Gln	Phe	Ala	Leu	Gly	Glu	Val	Glu	Val	Leu	Ser	Lys
			85					90					95		
Gln	Leu	Glu	Lys	Glu	Lys	Leu	Ala	Phe	Glu	Lys	Ala	Leu	Ser	Ser	Val
			100				105					110			
Lys	Ser	Lys	Val	Leu	Gln	Glu	Ser	Ser	Lys	Lys	Asp	Gln	Leu	Ile	Thr
			115				120				125				
Lys	Cys	Asn	Glu	Ile	Glu	Ser	His	Ile	Ile	Lys	Gln	Glu	Asp	Ile	Leu
	130					135					140				
Asn	Gly	Lys	Glu	Asn	Glu	Ile	Lys	Glu	Leu	Gln	Gln	Val	Ile	Ser	Gln
145					150					155					160
Gln	Lys	Gln	Ile	Phe	Ser	Pro	Pro	Pro	Ala	Gly	Ser	Val	Ala	Gly	Ile
			165					170					175		
Thr	Cys	Leu	Thr	Ser	Gly	Ser	Arg	Ser	Ser	Arg	Lys	Ala	Thr	Trp	Pro
			180				185						190		
Arg	Cys	Trp	Thr	Arg	Ser	Ile	Arg	Lys	Pro	Gln	Gly	His	Val	Arg	Pro
		195				200				205					
Ala	Ala	Thr	Ser	Ile	Pro	Gly	Lys	Asn	Lys	Met	Ala	Ala	Ala	Phe	Leu
	210					215				220					
Phe	Ser	Gly	Cys	Asn	Pro	Gln	Pro	Leu	Pro	Ser	Leu	Leu	Trp	Glu	Ser
225					230					235				240	
Pro	Ala	Ser	Ser	Pro	Cys	Tyr	Phe	Pro	Pro	Ser	Trp	Ile	Val	Val	Gly
			245					250					255		
Val	His	Lys	Val	Gly	Ala	Cys	Ser	Leu	Gly	Glu	Glu	Leu	Gly	Leu	Cys
			260					265					270		
Cys	Leu	Val	Gly	Thr	Thr	Ala	Ser	Phe	Gly	Tyr	Leu	Ile	Pro	Ser	Tyr
		275				280						285			
Ile	Asn	Ser	Pro	Gly	Tyr	Pro	Val	Ile	Phe	His	Pro	Thr	Pro	Ser	Val
	290					295					300				
Leu	Val	Asn													
305															

<210> 6271  
 <211> 1437  
 <212> DNA  
 <213> Homo sapiens

<400> 6271

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120  
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180  
agtggagctg gaatggtgag accaacaatcc gtgacacctg gactctttca gggtctgaag  
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360  
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420  
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480  
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1020  
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1080  
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1200  
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1380  
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1437

&lt;210&gt; 6272

&lt;211&gt; 296

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6272

Xaa Met Ala Thr Gly Gly Gln Gln Lys Glu Asn Thr Leu Leu His Leu

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Phe	Ala	Gly	Gly	Cys	Gly	Gly	Thr	Val	Gly	Ala	Ile	Phe	Thr	Cys	Pro		
			20					25					30				
Leu	Glu	Val	Ile	Lys	Thr	Arg	Leu	Gln	Ser	Ser	Arg	Leu	Ala	Leu	Arg		
		35					40					45					
Thr	Val	Tyr	Tyr	Pro	Gln	Val	His	Leu	Gly	Thr	Ile	Ser	Gly	Ala	Gly		
	50					55					60						
Met	Val	Arg	Pro	Thr	Ser	Val	Thr	Pro	Gly	Leu	Phe	Gln	Val	Leu	Lys		
65					70					75					80		
Ala	Val	Tyr	Phe	Ala	Cys	Tyr	Ser	Lys	Ala	Lys	Glu	Gln	Phe	Asn	Gly		
				85				90						95			
Ile	Phe	Val	Pro	Asn	Ser	Asn	Ile	Val	His	Leu	Phe	Ser	Ala	Gly	Ser		
			100					105					110				
Ala	Ala	Phe	Ile	Thr	Asn	Ser	Leu	Met	Asn	Pro	Ile	Trp	Met	Val	Lys		
	115						120					125					
Thr	Arg	Met	Gln	Leu	Glu	Gln	Lys	Val	Arg	Gly	Ser	Lys	Gln	Met	Asn		
	130					135					140						
Thr	Leu	Gln	Cys	Ala	Arg	Tyr	Val	Tyr	Gln	Thr	Glu	Gly	Ile	Arg	Gly		
145					150				155						160		
Phe	Tyr	Arg	Gly	Leu	Thr	Ala	Ser	Tyr	Ala	Gly	Ile	Ser	Glu	Thr	Ile		
				165				170						175			
Ile	Cys	Phe	Ala	Ile	Tyr	Glu	Ser	Leu	Lys	Lys	Tyr	Leu	Lys	Glu	Ala		
		180						185				190					
Pro	Leu	Ala	Ser	Ser	Ala	Asn	Gly	Thr	Glu	Lys	Asn	Ser	Thr	Ser	Phe		
	195						200					205					
Phe	Gly	Leu	Met	Ala	Ala	Ala	Ala	Leu	Ser	Lys	Gly	Cys	Ala	Ser	Cys		
	210					215					220						
Ile	Ala	Tyr	Pro	His	Glu	Val	Ile	Arg	Thr	Arg	Leu	Arg	Glu	Glu	Gly		
225					230				235						240		
Thr	Lys	Tyr	Lys	Ser	Phe	Val	Gln	Thr	Ala	Arg	Leu	Val	Phe	Arg	Glu		
				245				250						255			
Glu	Gly	Tyr	Leu	Ala	Phe	Tyr	Arg	Gly	Leu	Phe	Ala	Gln	Leu	Ile	Arg		
		260					265					270					
Gln	Ile	Pro	Asn	Thr	Ala	Ile	Val	Leu	Ser	Thr	Tyr	Glu	Leu	Ile	Val		
	275						280					285					
Tyr	Leu	Leu	Glu	Asp	Arg	Thr	Gln										
	290					295											

&lt;210&gt; 6273

&lt;211&gt; 2355

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6273

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120

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180

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240

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300



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1920

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<210> 6274  
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 <212> PRT  
 <213> Homo sapiens

<400> 6274  
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 Ala Ala Tyr Leu Gly Met Ala Tyr Val Ala Val Gln Val Ser Ser Ala  
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 <212> DNA  
 <213> Homo sapiens

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 420

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&lt;210&gt; 6276

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6276

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Asp	Asp	Leu	Ser	Asn	Ala	Ala	Arg	Glu	Leu	Arg	Val	Leu	Ile	Asp	Asp
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Ser	Gln	Ser	Ile	Ile	Phe	Ile	Asn	Leu	Asp	Ser	His	Arg	Asn	Val	Met
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Ile	Arg	Leu	Asn	Leu	Gln	Leu	Thr	Met	Gly	Thr	Phe	Ser	Leu	Ser	Leu

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&lt;210&gt; 6277

&lt;211&gt; 1206

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6277

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<210> 6278

<211> 399

<212> PRT

<213> Homo sapiens

<400> 6278

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Asn	Arg	Lys	His	Ile	Ser	Pro	Ala	Phe	Gln	Pro	Pro	Leu	Pro	Pro	Thr
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			165					170					175		
Thr	Ser	Gln	His	Pro	Pro	Ser	Leu	Ser	Pro	Lys	Pro	Pro	Thr	Arg	Ser
			180					185					190		
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&lt;210&gt; 6279

&lt;211&gt; 2795

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6279

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<212> PRT
<213> Homo sapiens
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&lt;211&gt; 741

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6281

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<210> 6282

<211> 162

<212> PRT

<213> Homo sapiens

<400> 6282

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<210> 6283

<211> 2312

<212> DNA

<213> Homo sapiens

<400> 6283

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&lt;210&gt; 6284

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6284

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			20					25					30		
Lys	Pro	Ile	His	Val	Phe	Phe	Gly	Ala	Ala	Ile	Leu	Ser	Leu	Ser	Ile
		35					40					45			
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	50					55					60				
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				85					90					95	
Ile	Leu	Leu	Ala	Ser	Ser	Trp	Lys	Arg	Pro	Glu	Pro	Gly	Ile	Leu	Thr
			100					105					110		
Asp	Arg	Gln	Pro	Leu	Leu	His	Asp	Gly	Glu						
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&lt;210&gt; 6285

&lt;211&gt; 2542

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6285

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&lt;210&gt; 6286

&lt;211&gt; 57

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6286

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Ser	Cys	Gly	Gln	His	Glu	Gln	Gln	Ile	Pro	Pro	Asp	His	His	Lys	Asp
			20					25					30		
Ala	Gly	Asn	Ile	Tyr	Leu	Gly	Thr	Ser	Pro	Pro	Ser	Gln	Glu	Pro	Ser
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&lt;210&gt; 6287

&lt;211&gt; 1674

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6287

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&lt;210&gt; 6288

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 <212> PRT  
 <213> Homo sapiens

<400> 6288  
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 35 40 45  
 Ser Val Lys Leu Asp Glu His Ile Ile Pro Leu Gly Ser Met Ala Ile  
 50 55 60  
 Asn Ser Ile Ser Lys Leu Thr Gln Leu Thr Gln Ser Ser Met Tyr Ser  
 65 70 75 80  
 Leu Pro Asn Ala Pro Thr Leu Ala Asp Leu Glu Asp Asp Thr His Glu  
 85 90 95  
 Ala Ser Asp Asp Gln Pro Glu Lys Pro His Phe Asp Ser Arg Ser Val  
 100 105 110  
 Ile Phe Glu Leu Asp Ser Cys Asn Gly Ser Gly Lys Val Cys Leu Val  
 115 120 125  
 Tyr Lys Ser Gly Lys Pro Ala Leu Ala Glu Asp Thr Glu Ile Trp Phe  
 130 135 140  
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 145 150 155 160  
 Tyr Tyr Arg Leu Leu Ile Thr His Leu Gly Leu Pro Gln Trp Gln Tyr  
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 1321

&lt;210&gt; 6290

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6290

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			20					25					30		
Ser	Pro	Asp	Glu	Gly	Leu	Ile	Glu	Asp	Leu	Thr	Ile	Glu	Asp	Lys	Ala
			35				40					45			
Val	Glu	Gln	Leu	Ala	Glu	Gly	Leu	Leu	Ser	His	Tyr	Leu	Pro	Asp	Leu
	50					55					60				
Gln	Arg	Ser	Lys	Gln	Ala	Leu	Gln	Glu	Leu	Thr	Gln	Asn	Gln	Val	Val

65		70		75		80									
Leu	Leu	Asp	Thr	Leu	Glu	Gln	Glu	Ile	Ser	Lys	Phe	Lys	Glu	Cys	His
		85							90					95	
Ser	Met	Leu	Asp	Ile	Asn	Ala	Leu	Phe	Ala	Glu	Ala	Lys	His	Tyr	His
		100						105						110	
Ala	Lys	Leu	Val	Asn	Ile	Arg	Lys	Glu	Met	Leu	Met	Leu	His	Glu	Lys
		115						120						125	
Thr	Ser	Lys	Leu	Lys	Lys	Arg	Ala	Leu	Lys	Leu	Gln	Gln	Lys	Arg	Gln
		130						135						140	
Lys	Glu	Glu	Leu	Glu	Arg	Glu	Gln	Gln	Arg	Glu	Lys	Gly	Phe	Glu	Arg
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Glu	Lys	Gln	Leu	Thr	Ala	Arg	Pro	Ala	Lys	Arg	Met				
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&lt;210&gt; 6291

&lt;211&gt; 2718

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6291

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<210> 6292

<211> 497

<212> PRT

<213> Homo sapiens

<400> 6292

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Leu	Ser	Arg	Pro	Gln	Pro	Pro	Pro	Asp	Pro	Leu	Leu	Leu	Gln	Arg	Leu
		35					40					45			
Pro	Arg	Pro	Ser	Ser	Leu	Ser	Asp	Lys	Thr	Gln	Leu	His	Ser	Arg	Trp
	50					55					60				
Leu	Asp	Ser	Ser	Arg	Cys	Leu	Met	Gln	Gln	Gly	Ile	Lys	Ala	Gly	Asp
65					70					75					80
Ala	Leu	Trp	Leu	Arg	Phe	Lys	Tyr	Tyr	Ser	Phe	Phe	Asp	Leu	Asp	Pro
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Lys	Thr	Asp	Pro	Val	Arg	Leu	Thr	Gln	Leu	Tyr	Glu	Gln	Ala	Arg	Trp
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Phe	Ala	Ala	Leu	Gln	Tyr	His	Ile	Asn	Lys	Leu	Ser	Gln	Ser	Gly	Glu
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Pro	Pro	Arg	Pro	Asp	Ala	Ser	Ala	Glu	Gly	Leu	Asn	Pro	Tyr	Gly	Leu
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Ile	Ser	Tyr	Val	Met	Val	Arg	Phe	Lys	Gly	Ser	Arg	Lys	Asp	Glu	Ile
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Leu	Gly	Ile	Ala	Asn	Asn	Arg	Leu	Ile	Arg	Ile	Asp	Leu	Ala	Val	Gly
			405						410					415	
Asp	Val	Val	Lys	Thr	Trp	Arg	Phe	Ser	Asn	Met	Arg	Gln	Trp	Asn	Val
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Asn	Trp	Asp	Ile	Arg	Gln	Val	Ala	Ile	Glu	Phe	Asp	Glu	His	Ile	Asn
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Val	Ala	Phe	Ser	Cys	Val	Ser	Ala	Ser	Cys	Arg	Ile	Val	His	Glu	Tyr
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Ile	Gly	Gly	Tyr	Ile	Phe	Leu	Ser	Thr	Arg	Glu	Arg	Ala	Arg	Gly	Glu
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Glu	Leu	Asp	Glu	Asp	Leu	Phe	Leu	Gln	Leu	Thr	Gly	Gly	His	Glu	Ala
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Phe															

&lt;210&gt; 6293

&lt;211&gt; 750

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6293

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<210> 6294  
 <211> 250  
 <212> PRT  
 <213> Homo sapiens

<400> 6294  
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 Gly Gly Thr Ala Ile Ala Gly Ser Val Glu Ala Val Ala Arg Leu Lys  
 35 40 45  
 Arg Ser Arg Leu Lys Val Arg Phe Cys Thr Asn Glu Ser Gln Lys Ser  
 50 55 60  
 Arg Ala Glu Leu Val Gly Gln Leu Gln Arg Leu Gly Phe Asp Ile Ser  
 65 70 75 80  
 Glu Gln Glu Val Thr Ala Pro Ala Pro Ala Ala Cys Gln Ile Leu Lys  
 85 90 95  
 Glu Arg Gly Leu Arg Pro Tyr Leu Leu Ile His Asp Gly Val Arg Ser  
 100 105 110  
 Glu Phe Asp Gln Ile Asp Thr Ser Asn Pro Asn Cys Val Val Ile Ala  
 115 120 125  
 Asp Ala Gly Glu Ser Phe Ser Tyr Gln Asn Met Asn Asn Ala Phe Gln  
 130 135 140  
 Val Leu Met Glu Leu Glu Lys Pro Val Leu Ile Ser Leu Gly Lys Gly  
 145 150 155 160  
 Arg Tyr Tyr Lys Glu Thr Ser Gly Leu Met Leu Asp Val Gly Pro Tyr  
 165 170 175  
 Met Lys Ala Leu Glu Tyr Ala Cys Gly Ile Lys Ala Glu Val Val Gly  
 180 185 190  
 Lys Pro Ser Pro Glu Phe Phe Lys Ser Ala Leu Gln Ala Ile Gly Val  
 195 200 205  
 Glu Ala His Gln Ala Val Met Ile Gly Asp Asp Ile Val Gly Asp Val  
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 Gly Gly Ala Gln Arg Cys Gly Met Arg Ala Leu Gln Val Arg Thr Gly  
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 Lys Phe Arg Pro Ser Asp Glu His His Pro  
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 <211> 2091  
 <212> DNA  
 <213> Homo sapiens

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1860

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<210> 6296

<211> 399

<212> PRT

<213> Homo sapiens

<400> 6296

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Ala	Cys	Gly	Cys	Arg	Leu	Val	Leu	Gly	Gly	Arg	Asp	Asp	Val	Ser	Ala
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Gly	Leu	Arg	Gly	Ser	His	Gly	Ala	Arg	Gly	Glu	Pro	Leu	Asp	Pro	Ala
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Arg	Pro	Leu	Gln	Arg	Pro	Pro	Arg	Pro	Glu	Val	Pro	Arg	Ala	Phe	Arg
65					70					75					80
Arg	Gln	Pro	Arg	Ala	Ala	Ala	Pro	Ser	Phe	Phe	Phe	Ser	Ser	Ile	Lys
				85					90					95	
Gly	Gly	Arg	Arg	Ser	Ile	Ser	Phe	Ser	Val	Gly	Ala	Ser	Ser	Val	Val
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Gly	Ser	Gly	Gly	Ser	Ser	Asp	Lys	Gly	Lys	Leu	Ser	Leu	Gln	Asp	Val
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Ala	Glu	Leu	Ile	Arg	Ala	Arg	Ala	Cys	Gln	Arg	Val	Val	Val	Met	Val
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Gly	Ala	Gly	Ile	Ser	Thr	Pro	Ser	Gly	Ile	Pro	Asp	Phe	Arg	Ser	Pro
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Gly	Ser	Gly	Leu	Tyr	Ser	Asn	Leu	Gln	Gln	Tyr	Asp	Leu	Pro	Tyr	Pro
			165					170						175	
Glu	Ala	Ile	Phe	Glu	Leu	Pro	Phe	Phe	Phe	His	Asn	Pro	Lys	Pro	Phe
		180					185						190		
Phe	Thr	Leu	Ala	Lys	Glu	Leu	Tyr	Pro	Gly	Asn	Tyr	Lys	Pro	Asn	Val
		195					200					205			
Thr	His	Tyr	Phe	Leu	Arg	Leu	Leu	His	Asp	Lys	Gly	Leu	Leu	Leu	Arg
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Leu	Tyr	Thr	Gln	Asn	Ile	Asp	Gly	Leu	Glu	Arg	Val	Ser	Gly	Ile	Pro
225				230						235					240
Ala	Ser	Lys	Leu	Val	Glu	Ala	His	Gly	Thr	Phe	Ala	Ser	Ala	Thr	Cys
			245					250					255		
Thr	Val	Cys	Gln	Arg	Pro	Phe	Pro	Gly	Glu	Asp	Ile	Arg	Ala	Asp	Val
		260						265				270			
Met	Ala	Asp	Arg	Val	Pro	Arg	Cys	Pro	Val	Cys	Thr	Gly	Val	Val	Lys
		275					280					285			
Pro	Asp	Ile	Val	Phe	Phe	Gly	Glu	Pro	Leu	Pro	Gln	Arg	Phe	Leu	Leu
	290					295					300				
His	Val	Val	Asp	Phe	Pro	Met	Ala	Asp	Leu	Leu	Leu	Ile	Leu	Gly	Thr

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          325          330          335
Ser Val Pro Arg Leu Leu Ile Asn Arg Asp Leu Val Gly Pro Leu Ala
          340          345          350
Trp His Pro Arg Ser Arg Asp Val Ala Gln Leu Gly Asp Val Val His
          355          360          365
Gly Val Glu Ser Leu Val Glu Leu Leu Gly Trp Thr Glu Glu Met Arg
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Asp Leu Val Gln Arg Glu Thr Gly Lys Leu Asp Gly Pro Asp Lys
385          390          395

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&lt;210&gt; 6297

&lt;211&gt; 472

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6297

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420
gcgctccgcc agccggctcc tcgtgtctgt ggcatgctg tgggctgtgc ac
472

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&lt;210&gt; 6298

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6298

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Ser Pro Ser Gly Leu Arg Met Val Pro Glu His Arg Ala Phe Gly Ser
          20          25          30
Pro Phe Gly Leu Glu Glu Pro Gln Trp Val Pro Asp Lys Glu Cys Arg
          35          40          45
Arg Cys Met Gln Cys Asp Ala Lys Phe Asp Phe Leu Thr Arg Lys His
          50          55          60
His Cys Arg Arg Cys Gly Lys Cys Phe Cys Asp Arg Cys Cys Ser Gln
65          70          75          80
Lys Val Pro Leu Arg Arg Met Cys Phe Val Asp Pro Val Arg Gln Cys
          85          90          95
Ala Glu Cys Ala Leu Val Ser Leu Lys Glu Ala Glu Phe Tyr Asp Lys

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Cys	Ala	Leu	Arg	Gln	Pro	Ala	Pro	Arg	Val	Cys	Gly	Asp	Ala	Val	Gly
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Cys	Ala														
145															

&lt;210&gt; 6299

&lt;211&gt; 1466

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6299

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840

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960

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1080

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<211> 372

<212> PRT

<213> Homo sapiens

<400> 6300

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			20					25					30		
Ser	Gly	Gly	Pro	Arg	Arg	Ser	Arg	Gly	Gly	Gln	Pro	Ala	His	Trp	Pro
		35					40					45			
Arg	Glu	Ser	Leu	Val	Leu	Tyr	His	Trp	Thr	Gln	Ser	Phe	Ser	Ser	Gln
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Lys	Val	Arg	Leu	Val	Ile	Ala	Glu	Lys	Gly	Leu	Val	Cys	Glu	Glu	Arg
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Asp	Val	Ser	Leu	Pro	Gln	Ser	Glu	His	Lys	Glu	Pro	Trp	Phe	Met	Arg
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Leu	Asn	Leu	Gly	Glu	Glu	Val	Pro	Val	Ile	Ile	His	Arg	Asp	Asn	Ile
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Ile	Ser	Asp	Tyr	Asp	Gln	Ile	Ile	Asp	Tyr	Val	Glu	Arg	Thr	Phe	Thr
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&lt;210&gt; 6301

&lt;211&gt; 911

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6301

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&lt;210&gt; 6302

&lt;211&gt; 202

&lt;212&gt; PRT



<213> Homo sapiens

<400> 6302

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 Cys Glu Arg Val Lys Gly Pro Val Gly Ser Leu Lys Ser Val Glu Ala  
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<212> PRT

<213> Homo sapiens

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&lt;211&gt; 2119

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6307

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2119

&lt;210&gt; 6308

&lt;211&gt; 483

&lt;212&gt; PRT



&lt;213&gt; Homo sapiens

&lt;400&gt; 6308

```

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Asn Ile Ile Ala Ala Lys Ala Ala Glu Val Arg Ala Asn Lys Val Asn
 20      25      30
Trp Gln Ser Tyr Leu Gln Gly Gln Met Ile Ser Ala Glu Asp Cys Glu
 35      40      45
Phe Ile Gln Arg Phe Glu Met Lys Arg Ser Pro Glu Glu Lys Gln Glu
 50      55      60
Met Leu Gln Thr Glu Gly Ser Gln Cys Ala Lys Thr Phe Ile Asn Leu
65      70      75      80
Met Thr His Ile Cys Lys Glu Gln Thr Val Gln Tyr Ile Leu Thr Met
 85      90      95
Val Asp Asp Met Leu Gln Glu Asn His Gln Arg Val Ser Ile Phe Phe
100      105      110
Asp Tyr Ala Arg Cys Ser Lys Asn Thr Ala Trp Pro Tyr Phe Leu Pro
115      120      125
Met Leu Asn Arg Gln Asp Pro Phe Thr Val His Met Ala Ala Arg Ile
130      135      140
Ile Ala Lys Leu Ala Ala Trp Gly Lys Glu Leu Met Glu Gly Ser Asp
145      150      155      160
Leu Asn Tyr Tyr Phe Asn Trp Ile Lys Thr Gln Leu Ser Ser Gln Lys
165      170      175
Leu Arg Gly Ser Gly Val Ala Val Glu Thr Gly Thr Val Ser Ser Ser
180      185      190
Asp Ser Ser Gln Tyr Val Gln Cys Val Ala Gly Cys Leu Gln Leu Met
195      200      205
Leu Arg Val Asn Glu Tyr Arg Phe Ala Trp Val Glu Ala Asp Gly Val
210      215      220
Asn Cys Ile Met Gly Val Leu Ser Asn Lys Cys Gly Phe Gln Leu Gln
225      230      235      240
Tyr Gln Met Ile Phe Ser Ile Trp Leu Leu Ala Phe Ser Pro Gln Met
245      250      255
Cys Glu His Leu Arg Arg Tyr Asn Ile Ile Pro Val Leu Ser Asp Ile
260      265      270
Leu Gln Glu Ser Val Lys Glu Lys Val Thr Arg Ile Ile Leu Ala Ala
275      280      285
Phe Arg Asn Phe Leu Glu Lys Ser Thr Glu Arg Glu Thr Arg Gln Glu
290      295      300
Tyr Ala Leu Ala Met Ile Gln Cys Lys Val Leu Lys Gln Leu Glu Asn
305      310      315      320
Leu Glu Gln Gln Lys Tyr Asp Asp Glu Asp Ile Ser Glu Asp Ile Lys
325      330      335
Phe Leu Leu Glu Lys Leu Gly Glu Ser Val Gln Asp Leu Ser Ser Phe
340      345      350
Asp Glu Tyr Ser Ser Glu Leu Lys Ser Gly Arg Leu Glu Trp Ser Pro
355      360      365
Val His Lys Ser Glu Lys Phe Trp Arg Glu Asn Ala Val Arg Leu Asn
370      375      380
Glu Lys Asn Tyr Glu Leu Leu Lys Ile Leu Thr Lys Leu Leu Glu Val
385      390      395      400
Ser Asp Asp Pro Gln Val Leu Ala Val Ala Ala His Asp Val Gly Glu

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				405					410					415					
Tyr	Val	Arg	His	Tyr	Pro	Arg	Gly	Lys	Arg	Val	Ile	Glu	Gln	Leu	Gly				
			420					425					430						
Gly	Lys	Gln	Leu	Val	Met	Asn	His	Met	His	His	Glu	Asp	Gln	Gln	Val				
		435					440					445							
Arg	Tyr	Asn	Ala	Leu	Leu	Ala	Val	Gln	Lys	Leu	Met	Val	His	Asn	Trp				
	450					455					460								
Glu	Tyr	Leu	Gly	Lys	Gln	Leu	Gln	Ser	Glu	Gln	Pro	Gln	Thr	Ala	Ala				
465					470					475					480				
Ala	Arg	Ser																	

&lt;210&gt; 6309

&lt;211&gt; 564

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 6309

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 420  
 ccgcagcttc tcccggagag acgcgttctc gctctccctg tccagcagcg cgatctgagc  
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 564

&lt;210&gt; 6310

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6310

Cys	Thr	Pro	Thr	Ala	Pro	Gly	Ser	Ser	Arg	Pro	Val	Ser	Leu	Trp	Gly				
1				5					10					15					
Ala	Gln	Gly	Pro	His	Gly	Gly	Arg	Leu	His	Val	Ser	Gln	Asp	Gly	Val				
		20					25					30							
Leu	Gln	Glu	Ala	Arg	Pro	Leu	Gly	Leu	Leu	Val	Pro	Asp	Ala	Gly	Asp				
	35					40				45									
Leu	Arg	Leu	Pro	Glu	Pro	Gln	Leu	Leu	Pro	Glu	Arg	Arg	Val	Leu	Ala				
50					55				60										
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Arg Phe Glu

70

75

80

<210> 6311  
<211> 1548  
<212> DNA  
<213> Homo sapiens

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120  
tttaaagatc ttatggggct caaatactaa cttcataaat ggccttttga ataacagcag  
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caaataatct ctcagctgat atttcaattt actaaggaag cacaaattaa aacattcctg  
240  
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420  
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480  
cccaaagtc ttcaacgtgg aaggctctat cacctccaga ccaacaaatg cctggtggcc  
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660  
ctagatatgt cagagactcg ctcacagac ccgccacggc tcatgaaatg ccacgggtca  
720  
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780  
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1320

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<210> 6312  
 <211> 234  
 <212> PRT  
 <213> Homo sapiens

<400> 6312  
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 20 25 30  
 Leu Asp Glu Tyr Lys Glu Gln Tyr Phe Ser Leu Arg Pro Asp Leu Lys  
 35 40 45  
 Thr Lys Ser Tyr Gly Asn Ile Ser Glu Arg Val Glu Leu Arg Lys Lys  
 50 55 60  
 Leu Gly Cys Lys Ser Phe Lys Trp Tyr Leu Asp Asn Val Tyr Pro Glu  
 65 70 75 80  
 Met Gln Ile Ser Gly Ser His Ala Lys Pro Gln Gln Pro Ile Phe Val  
 85 90 95  
 Asn Arg Gly Pro Lys Arg Pro Lys Val Leu Gln Arg Gly Arg Leu Tyr  
 100 105 110  
 His Leu Gln Thr Asn Lys Cys Leu Val Ala Gln Gly Arg Pro Ser Gln  
 115 120 125  
 Lys Gly Gly Leu Val Val Leu Lys Ala Cys Asp Tyr Ser Asp Pro Asn  
 130 135 140  
 Gln Ile Trp Ile Tyr Asn Glu Glu His Glu Leu Val Leu Asn Ser Leu  
 145 150 155 160  
 Leu Cys Leu Asp Met Ser Glu Thr Arg Ser Ser Asp Pro Pro Arg Leu  
 165 170 175  
 Met Lys Cys His Gly Ser Gly Gly Ser Gln Gln Trp Thr Phe Gly Lys  
 180 185 190  
 Asn Asn Arg Leu Tyr Gln Val Ser Val Gly Gln Cys Leu Arg Ala Val  
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 Asp Pro Leu Gly Gln Lys Gly Ser Val Ala Met Ala Ile Cys Asp Gly  
 210 215 220  
 Ser Ser Ser Gln Gln Trp His Leu Glu Gly  
 225 230

<210> 6313  
 <211> 725  
 <212> DNA  
 <213> Homo sapiens

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 120  
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 180  
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 240  
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 300  
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 360  
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 420  
 caggatcttt ggaatcaaca tacacatctt ttagaaacga cagcagcttt tcacttttac  
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 725

<210> 6314

<211> 175

<212> PRT

<213> Homo sapiens

<400> 6314

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			20					25					30		
His	Pro	Ser	Thr	Asn	Ser	Leu	Leu	Arg	Glu	Gln	Ile	Ser	Leu	Tyr	Pro
		35					40					45			
Glu	Val	Lys	Gly	Glu	Ile	Ala	Arg	Lys	Asp	Glu	Lys	Leu	Leu	Ser	Phe
	50					55					60				
Leu	Lys	Asp	Val	Tyr	Val	Asp	Ser	Lys	Asp	Pro	Val	Ser	Ser	Leu	Gln
65					70					75					80
Val	Lys	Ala	Ala	Glu	Thr	Cys	Gln	Glu	Pro	Lys	Glu	Phe	Arg	Leu	Pro
			85						90					95	
Lys	Asp	His	His	Phe	Asp	Met	Ile	Asn	Ile	Lys	Ser	Ile	Pro	Lys	Gly
		100						105					110		
Lys	Ile	Ser	Ile	Val	Glu	Ala	Leu	Thr	Leu	Leu	Asn	Asn	His	Lys	Leu
	115						120					125			
Phe	Pro	Glu	Thr	Trp	Thr	Ala	Glu	Lys	Ile	Met	Gln	Glu	Tyr	Gln	Leu
	130					135					140				
Glu	Gln	Lys	Asp	Val	Asn	Ser	Leu	Leu	Lys	Tyr	Phe	Val	Thr	Phe	Glu
145					150					155					160
Val	Glu	Ile	Phe	Pro	Pro	Glu	Asp	Lys	Lys	Ala	Ile	Arg	Ser	Lys	
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<210> 6315  
<211> 378  
<212> DNA  
<213> Homo sapiens

<400> 6315  
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120  
tatgtaaaat ataaatatgc aatggatgaa gctgatgaaa aaggatgggt tccattgcat  
180  
gaagctgttg ttcaacccat tcaacaaata cttgagattg ttctggatgc atcctataag  
240  
acactctggg aattcaagac ctgtgatgga gaaacaccct tgactttggc agtcaaagct  
300  
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378

<210> 6316  
<211> 126  
<212> PRT  
<213> Homo sapiens

<400> 6316  
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Val Pro Leu Ser Ala Gln Asn Arg Lys Leu Val Glu Ala Ile Lys Gln  
20 25 30  
Gly His Ile Pro Glu Leu Gln Glu Tyr Val Lys Tyr Lys Tyr Ala Met  
35 40 45  
Asp Glu Ala Asp Glu Lys Gly Trp Phe Pro Leu His Glu Ala Val Val  
50 55 60  
Gln Pro Ile Gln Gln Ile Leu Glu Ile Val Leu Asp Ala Ser Tyr Lys  
65 70 75 80  
Thr Leu Trp Glu Phe Lys Thr Cys Asp Gly Glu Thr Pro Leu Thr Leu  
85 90 95  
Ala Val Lys Ala Gly Leu Val Glu Asn Val Arg Thr Leu Leu Glu Lys  
100 105 110  
Gly Val Trp Pro Asn Thr Lys Asn Asp Lys Gly Glu Thr Pro  
115 120 125

<210> 6317  
<211> 1201  
<212> DNA  
<213> Homo sapiens

<400> 6317  
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120

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 300  
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 360  
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 420  
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 480  
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 540  
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 600  
 cgctggcgta tatctgattt agtactgctg actgggtggc gtggacggga gtgctgacgt  
 660  
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 720  
 cggtttttga tattgcttga agatacacta tctgcctca tggagttcct aatatttttc  
 780  
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 840  
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 1200  
 c  
 1201

&lt;210&gt; 6318

&lt;211&gt; 94

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6318

Ser	Ile	Ser	Ser	Glu	Ser	Glu	Leu	Leu	Ala	Leu	Asp	Arg	Leu	Asp	Ala
1				5					10					15	
Leu	Arg	Ser	Arg	Gly	Cys	Leu	Arg	Ala	Gly	Ser	Ser	Ser	Trp	Tyr	Ser
			20					25					30		
Thr	Thr	Thr	Leu	Ser	Ser	Ala	Ser	Met	Ser	Trp	Ser	Ser	Ser	Ser	Ser
			35				40					45			
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Met	Gly	Ser	Ser
	50					55					60				
Gly	Thr	Phe	Thr	Ser	Pro	Glu	Cys	Arg	Cys	Leu	Tyr	Asp	Val	Lys	Pro



65                                      70                                      75                                      80  
Thr Ser Ser Pro Ile Arg Ala Leu Phe Leu Ile Thr Ser Arg  
                                    85                                      90

<210> 6319

<211> 345

<212> DNA

<213> Homo sapiens

<400> 6319

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tgcttcgacg gccacctgga ggtgggtgcg tacctggtcg gcgagcacca ggccgacctg  
180  
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240  
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345

<210> 6320

<211> 115

<212> PRT

<213> Homo sapiens

<400> 6320

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                                    20                                      25                                      30  
Asn Ser Thr Pro Leu Arg Ala Ala Cys Phe Asp Gly His Leu Glu Val  
                                    35                                      40                                      45  
Val Arg Tyr Leu Val Gly Glu His Gln Ala Asp Leu Glu Val Ala Asn  
50                                      55                                      60  
Arg His Gly His Thr Cys Leu Met Ile Ser Cys Tyr Lys Gly His Arg  
65                                      70                                      75                                      80  
Glu Ile Ala Arg Tyr Leu Leu Glu Gln Gly Ala Gln Val Asn Arg Arg  
                                    85                                      90                                      95  
Ser Ala Lys Gly Asn Thr Ala Leu His Asp Cys Ala Glu Ser Gly Ser  
                                    100                                      105                                      110  
Leu Glu Ile  
115

<210> 6321

<211> 1442

<212> DNA

<213> Homo sapiens

<400> 6321

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420  
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1440  
ta  
1442

&lt;210&gt; 6322

&lt;211&gt; 196

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 6322

Met	Ser	Ser	Pro	Gly	Leu	Thr	Glu	Asn	Ser	Gln	Arg	Asp	Pro	Ser	Glu
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Leu	Asp	Ala	Glu	His	Ala	Gln	Lys	Val	Leu	Glu	Met	Glu	His	Thr	Gln
			20					25					30		
Gln	Met	Lys	Leu	Lys	Glu	Arg	Gln	Lys	Phe	Phe	Glu	Glu	Ala	Phe	Gln
		35					40					45			
Gln	Asp	Met	Glu	Gln	Gln	Tyr	Leu	Ser	Thr	Gly	Tyr	Leu	Gln	Ile	Ala
	50					55					60				
Glu	Arg	Arg	Glu	Pro	Ile	Gly	Ser	Met	Ser	Ser	Met	Glu	Val	Asn	Val
65					70					75				80	
Asp	Met	Leu	Glu	Gln	Met	Asp	Leu	Met	Asp	Ile	Ser	Asp	Gln	Glu	Ala
				85					90					95	
Leu	Asp	Val	Phe	Leu	Asn	Ser	Gly	Gly	Glu	Glu	Asn	Thr	Val	Leu	Ser
		100						105					110		
Pro	Ala	Leu	Gly	Pro	Glu	Ser	Ser	Thr	Cys	Gln	Asn	Glu	Ile	Thr	Leu
		115					120					125			
Gln	Val	Pro	Asn	Pro	Ser	Glu	Leu	Arg	Ala	Lys	Pro	Pro	Ser	Ser	Ser
	130					135					140				
Ser	Thr	Cys	Thr	Asp	Ser	Ala	Thr	Arg	Asp	Ile	Ser	Glu	Gly	Gly	Glu
145					150					155				160	
Ser	Pro	Val	Val	Gln	Ser	Asp	Glu	Glu	Glu	Val	Gln	Val	Asp	Thr	Ala
				165					170					175	
Leu	Ala	Thr	Ser	His	Thr	Asp	Arg	Glu	Ala	Thr	Pro	Asp	Gly	Gly	Glu
			180					185					190		
Asp	Ser	Asp	Ser												
			195												

**What is claimed is:**

1. An isolated nucleic acid molecule encoding a polypeptide comprising an amino acid sequence that is at least 85% identical to a polypeptide including an amino acid sequence selected from the group consisting of SEQ ID NO:2 $n$ , wherein  $n$  is any integer 1-3161, or the complement thereof.
2. The isolated nucleic acid molecule of claim 1, said molecule hybridizing under stringent conditions to a nucleic acid sequence complementary to a nucleic acid molecule comprising the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 $n$ , wherein  $n$  is any integer 1-3161, or the complement thereof.
3. The isolated nucleic acid molecule of claim 1, said molecule encoding a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 $n$ , wherein  $n$  is any integer 1-3161, or an amino acid sequence comprising one or more conservative substitutions in the amino acid sequence selected from the group consisting of SEQ ID NO: 2 $n$ .
4. The isolated nucleic acid molecule of claim 1, wherein said molecule encodes a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2 $n$ , wherein  $n$  is any integer 1-3161.
5. The isolated nucleic acid molecule of claim 1, wherein said molecule comprises the sequence of nucleotides selected from the group consisting of SEQ ID NO:2 $n$ -1, wherein  $n$  is any integer 1-3161, or the complement thereof.
6. An oligonucleotide less than 100 nucleotides in length and comprising at least 10 contiguous nucleotides selected from the group consisting of SEQ ID NO:2 $n$ -1, wherein  $n$  is any integer 1-3161, or the complement thereof.
7. A vector comprising the nucleic acid molecule of claim 1.

8. The vector of claim 7, wherein said vector is an expression vector.
9. A host cell comprising the isolated nucleic acid molecule of claim 1.
10. A substantially purified polypeptide comprising an amino acid sequence at least 80% identical to a polypeptide comprising the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
11. The polypeptide of claim 10, wherein said polypeptide comprises the amino acid sequence selected from the group consisting of SEQ ID NO: 2*n*, wherein *n* is any integer 1-3161.
12. An antibody that selectively binds to the polypeptide of claim 10.
13. A pharmaceutical composition comprising a therapeutically or prophylactically effective amount of a therapeutic selected from the group consisting of:
  - a) the nucleic acid of claim 1;
  - b) the polypeptide of claim 10; and
  - c) the antibody of claim 12;and a pharmaceutically acceptable carrier.
14. A kit comprising in one or more containers, a therapeutically or prophylactically effective amount of the pharmaceutical composition of claim 13.
15. A method of producing the polypeptide of claim 10, said method comprising culturing the host cell of claim 9 under conditions in which the nucleic acid molecule is expressed.
16. A method of detecting the presence of the polypeptide of claim 10 in a sample, comprising contacting the sample with a compound that selectively binds to said polypeptide under conditions allowing the formation of a complex between said polypeptide and said

compound, and detecting said complex, if present, thereby identifying said polypeptide in said sample.

17. A method of detecting the presence of a nucleic acid molecule of claim 1 in a sample, the method comprising contacting the sample with a nucleic acid probe or primer that selectively binds to the nucleic acid molecule and determining whether the nucleic acid probe or primer bound to the nucleic acid molecule of claim 1 is present in the sample.

18. A method for modulating the activity of the polypeptide of claim 10, the method comprising contacting a cell sample comprising the polypeptide of claim 10 with a compound that binds to said polypeptide in an amount sufficient to modulate the activity of the polypeptide.

19. The use of a therapeutic in the manufacture of a medicament for treating a syndrome associated with a ORFX-associated disorder, wherein said therapeutic is selected from the group consisting of:

- a) the nucleic acid of claim 1;
- b) the polypeptide of claim 10; and
- c) the antibody of claim 12.

20. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) contacting a test compound with the polypeptide of claim 10; and
- b) determining if said test compound binds to said polypeptide,

wherein binding of said test compound to said polypeptide indicates the test compound is a modulator of activity or of latency or predisposition to an ORFX-associated disorder.

21. A method for screening for a modulator of activity or of latency or predisposition to an ORFX-associated disorder, said method comprising:

- a) administering a test compound to a test subject at an increased risk ORFX-associated disorder, wherein said test subject recombinantly expresses a polypeptide encoded by the nucleotide of claim 1;

- b) measuring expression the activity of said protein in said test subject;
- c) measuring the activity of said protein in a control subject that recombinantly expresses said protein and is not at increased risk for an ORFX-associated disorder; and
- d) comparing expression of said protein in said test subject and said control subject, wherein a change in the activity of said protein in said test subject relative to said control subject indicates the test compound is a modulator or of latency of predisposition to an ORFX-associated disorder.

22. The method of claim 20, wherein said test animal is a recombinant test animal that expresses a test protein transgene or expresses said transgene under the control of a promoter at an increased level relative to a wild-type test animal, and wherein said promoter is not the native gene promoter of said transgene.

23. A method for determining the presence of or predisposition to a disease associated with altered levels of a polypeptide of claim 11 in a subject, the method comprising:

- a) measuring the amount of the polypeptide in a sample from said subject; and
- b) comparing the amount of said polypeptide in step (a) to the amount of the polypeptide present in a control sample,

wherein an alteration in the level of the polypeptide in step (a) as compared to the control sample indicates the presence of or predisposition to a disease in said subject.

24. The method of claim 23, wherein said subject is a human.

25. A method for determining the presence of or predisposition to a disease associated with altered levels the nucleic acid molecule of claim 1 in a subject, the method comprising:

- a) measuring the amount of the nucleic acid in a sample from the mammalian subject; and
- b) comparing the amount of said nucleic acid in step (a) to the amount of the nucleic acid present in a control sample,



wherein an alteration in the level of the nucleic acid in step (a) as compared to the control sample indicates the presence of or predisposition to said disease in said subject.

26. The method of claim 25, wherein said subject is a human.

27. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject a polypeptide of claim 10 in an amount sufficient to alleviate or prevent said pathological condition.

28. The method of claim 27, wherein said subject is a human.

29. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject a nucleic acid molecule of claim 1 in an amount sufficient to alleviate or prevent said pathological condition.

30. The method of claim 29, wherein said subject is a human.

31. A method of treating or preventing a pathological condition associated with an ORFX-associated disorder in a subject, the method comprising administering to said subject an antibody of claim 12 in an amount sufficient to alleviate or prevent said pathological condition.

32. The method of claim 31, wherein said subject is a human.